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I. *Popular Letters on the Odic Force, and on Magnetism.* By Baron Reichenbach. Translated by William Gregory, M.D., F.R.S.E., Professor of Chemistry in the University of Edinburgh.

INTRODUCTORY NOTICE BY THE TRANSLATOR.

The following letters appeared in Summer, 1852, in the Augsburg Gazette *(Allgemeine Zeitung)*, a paper in which many interesting series of letters have appeared on various branches of science. The present state of public opinion on the subject of mesmerism is such that it appears to me probable that these letters may prove very useful.

The medical profession has, within the last two or three years, found it necessary to admit a very large part of the long and obstinately rejected phenomena of mesmerism; viz., all those phenomena which depend on suggestion. These, so long as they were described by mesmerists as occurring in the mesmeric sleep, were scornfully rejected, and it is only since they have been publicly exhibited as occurring in the waking state, and absurdly called electro-biological, that they have been admitted. Yet they were just as true, and as fully demonstrated by the mesmerists before, had the evidence but met with a fair reception.

But those who now admit the suggestive phenomena forget the past and, *still neglecting or despising investigation*, ascribe, without hesitation, all mesmeric phenomena whatever, so far as they admit these, to the influence of suggestion; and either deny or disregard all the evidence which tends to prove the existence of a transferable influence, capable of acting at a distance, and of passing through various media—opaque or other-

wise. The writers now alluded to still reject, *precisely as they once did the phenomena of suggestion*, all the alleged facts of action at a distance, of sympathy without suggestion, of vision at a distance, or lucid vision generally; and rather than admit such facts, which imply such a transferable influence as I have above alluded to, ascribe all the alleged facts to imposture and collusion, exactly as they did a few years ago in reference to the phenomena of suggestion. They pronounce the very idea of such a force or influence to be unphysiological, unphilosophical and absurd, and begin their *researches* (?!) with assuming, *a priori*, the principle *that no such influence or force exists or can exist*.

Now against this mode of reasoning, *a priori*, in opposition to alleged facts, observed by competent persons of good character, I protest, in the name of logic and science, as altogether inadmissible. I maintain that we know little or nothing of the laws of nature in such matters, and certainly nothing to justify such an assumption. Nor can we ever learn anything of the laws of nature save by observation and deduction from observed facts; in no case by *a priori* assertions.

I maintain, further, that there exists a mass of evidence in favour of the existence of a force or influence, in all probability imponderable, but quite distinct from all the known imponderables—such as heat, light, electricity, magnetism, &c.; and that the facts observed by mesmerists, in which suggestion has no share, can only be accounted for by the supposition of some such force. But I hold, that even if we could not account for them at all in this or any other way, these facts exist as truly as do those of suggestion, and to deny them does not annihilate them. They remain, and will ultimately compel recognition.

I will go further, and say that we have no more nor better evidence of the existence of the forces or influences which we assume to be the causes of heat, light, &c. (but of the true nature of which we know nothing, except that they appear to be imponderable), than we do of the supposed mesmeric force or influence. When we are able to answer the question, "What is light, or heat, or electricity?" but not till then, we shall be able to say what is the true nature of the mesmeric influence. At present, of all these forces and many more we know only the effects, but not the essence. We have ascertained by observation some of the laws which regulate them, but still not their essence. And there is no reason whatever to suppose that the admitted list of imponderable natural forces is incapable of additions being made to it, from the same source, namely, observation.

Be this as it may, it is on this point at present, that the mesmeric controversy hinges. Those who assume that we know all the forces and laws of nature refuse to admit a new influence or imponderable; as if electricity itself did not date, at the very earliest, from the 17th century only; and as if magnetism as a science, and above all, electro-magnetism, were not of still more recent origin. Those, again, who appeal to observation, maintain that the facts observed demonstrate the existence of a new imponderable, or force, or influence as plainly as do other facts the existence of the causes of heat, light, electricity, magnetism (ordinary), chemical attraction, gravitation, cohesion and any other forces which may belong to this category. And if it be unphilosophical to talk of the mesmeric fluid, be it remembered that this is done only in the same sense in which we speak of the electric fluid or the magnetic fluid, a mode of expression which arose from the resemblance of some of the phenomena to the motion of currents of fluid matter.

Up to a recent period, all the evidence in favour of the existence of a mesmeric force or influence was derived from experiments made on persons in the state of mesmeric sleep or somnambulism. But in 1842, Reichenbach adduced a vast body of facts, altogether independent of the mesmeric state or processes. He studied the phenomena precisely as those of all the other departments of physical science are studied; and, precisely as is done in all other cases, he gave a name to the new force, because he found it to differ from all known forces.

The letters which follow contain a brief and popular account of his researches, and are, in my opinion, admirably calculated to shew the utter futility of the *a priori* argument against the existence of this force. It is for this reason that I think they will be useful at the present time, when so much misapprehension prevails as to the extent and bearing of his researches. None of the writers who have opposed his views have given proof of having even carefully read his work. Their arguments are addressed to superficial and erroneous notions of it; and I have no hesitation in stating my conviction, after a very careful study of his writings, and many experiments on the subject of them, that no scientific work whatever, known to me, deserves to rank higher in all the qualities which belong to an investigation conducted on the true Baconian principles. I have met with no argument which even touches his conclusions. But in conclusion I would remind the reader that while Baron Reichenbach speaks of a force or influence as the cause of the phenomena he has observed, he is not to

be understood as using these terms in any other sense than that in which we daily use them in reference to the known and admitted imponderables. As we speak of a magnetic or electric influence or force, so, and not otherwise, does he speak of the od force or the odic force,—meaning by this the unknown cause of certain observed phenomena, which is precisely what we mean when we speak of the electric force.

Evidently then, the important point is the phenomena, and not the name given to the supposed cause of them. And the reader will find in these letters abundant proof of the existence of peculiar phenomena, and also, if he considers the subject fairly, equally abundant proof that suggestion has nothing whatever to do with them. The precautions taken to exclude suggestion, however, can only be fully understood by studying Baron Reichenbach's great work, of which the first volume has been translated both by Dr. Ashburner and by myself.

Even the present letters, however, contain sufficient proof to satisfy such as can judge of scientific evidence, that suggestion cannot explain the facts; and this is the conclusion to which all have come, who have investigated these phenomena, and which agrees perfectly with the conclusion arrived at by the independent researches of mesmerists on persons in the mesmeric state, it being borne in mind that all the observations of Reichenbach were made on persons in the ordinary or waking condition.

WILLIAM GREGORY.

LETTER I.

Sensitives.

Have you never, my dear friend, met with individual persons exhibiting the strange peculiarity of a marked aversion to everything *yellow?* Yet a lemon, an orange with its fiery hue, or a mass of bright gold, surely presents a charming spectacle! What can there be unpleasant in it? If you ask these persons which colour is most pleasing to them, all, with one voice, will answer, *blue*. The azure of the sky is lovely, and has a grateful influence; but when sunset encases it in a frame of gold, surely the lovely becomes still lovelier,—nay, splendid. Had I to choose between inhabiting a room painted straw yellow or one painted light blue, I should probably prefer the former. But all the haters of yellow to whom I have said this, laughed me to scorn and bewailed my bad taste.

Let me invert my question, and ask, Have you ever met

with any one, to whom blue is disagreeable? Certainly not. No one has ever disliked blue. Whence, then, in certain persons, so great and universal an agreement in the dislike to yellow and the preference for blue?

We know that blue and reddish yellow stand in a peculiar relation to each other. They are complementary colours; that is, each, added to the other, makes up white; and they form a kind of polar contrast to each other. Does something more lie here concealed than the mere action of these colours on our sense of vision? Is there not an unknown and more deeply seated difference than the simple optical difference of colour, which all perceive? And does there exist among men a distinction as far as concerns the perception of this supposed difference, so that some are able to perceive what others cannot? Are there, so to speak, men with a double sense? This would be a strange thing. Let us endeavour to pursue it further.

A young girl has no objection to look in her mirror; nay, perhaps even men are to be found who delight in its pleasing reflection. Who can blame them, if a true image of God's fair masterpiece smiles on them from its surface, and awakes the presentiment of the conquests which await them? There is indeed nothing in the world more magnificent or more blissful than the contemplation of a beautiful *ipsemet ego*. But what if it should prove that there are fair maidens, stately matrons, and handsome men, who abhor the mirror? who turn from it, and cannot endure to look at their own image in it? Seriously, there are such persons, and indeed they are far from rare, in whom the looking-glass excites a peculiar sensation of dread, as if a lukewarm, unpleasant aura breathed upon them, so that they cannot endure the aspect of the mirror calmly even for a minute. It not only reflects their image, but affects them besides with an inexpressibly painful impression, stronger in some persons, weaker in others, and in others again only so far perceptible as to cause an undefined aversion to the mirror. What is this? Whence comes it? Why do only certain persons perceive this unpleasant sensation, and not all?

You have travelled much, and it is impossible that you should not have met with persons in stage coaches, omnibuses, and railway carriages, who everywhere with the most urgent selfwill insisted on opening the carriage windows. They cared not for storm, rain, thorough draughts, nor icy cold; they regarded not the sufferings of their rheumatic fellow-travellers, and behaved, in short, as you thought, with intolerable selfishness. You have no doubt met with such, and regarded their

conduct as the result of ill breeding. But let me beg of you to suspend your judgment for a little, at least till a few of my letters have passed under your eyes. Possibly you may acquire the conviction, that in a small and crowded space influences as yet unknown are at work, strong enough to be absolutely insupportable to certain members of the party, while others do not in the least perceive their effects.

Is there no one among your friends who has the fancy of never sitting in a row between others at table, in the theatre, in church, or in society, but who always chooses a special seat for himself, or occupies the corner seat if possible? When you see such an one, mark him well. He is our man, and we shall soon become better acquainted with him.

You have surely observed that there are ladies who frequently, although otherwise healthy, become ill or faint in church: even in a corner seat they suffer, and must often be carried out fainting. If you will observe, you will find that it is always the same persons, that is, only certain persons, who are thus affected. Such persons are quite unable long to endure sitting in the nave of a church, and yet they are perfectly healthy.

Your physician will tell you that to sleep well and to enjoy good health, you ought to lie on your right side. If you ask why, and he is honest, he will say that he cannot tell. He only knows from experience that many persons cannot sleep at all if they lie on the left side. The cause is to him quite unknown. If you examine more closely, you will find that all men do not require to lie on the right side; that many also sleep on the left, so that there are plenty of people to whom it is a matter of indifference on which side they lie, and who are equally refreshed either way. But you will also find, that those who can only sleep on the right side are a small number of persons; in whom, however, this peculiarity is so strongly marked, that they lie for hours, nay, for half the night, on the left side, without being able to fall asleep, while as soon as they turn round to the right side they fall asleep instantly. This is strange; but you may observe it everywhere.

How many persons are there who cannot, without a sense of nausea, eat from a spoon of packfong, new silver, German silver, argentan, or whatever name may be given to the alloys now so common as substitutes for silver! Yet others cannot perceive any difference between the use of these alloys and that of silver! How many are there, who cannot taste coffee, tea or chocolate, if made in brass or copper vessels, which to most people is a matter of indifference! How many persons

dislike warm, and particularly overboiled food, or fat, or sweet things, and infinitely prefer cold, simple, above all slightly acid nourishment! There are not a few who have such a passion for salad, that they may be heard to say they would readily sacrifice all other food for salad alone; while others cannot even conceive how salad should yield such unlimited delight.

There are persons who cannot endure that any should stand close behind them. They avoid all crowds or mobs, fairs or markets. Others dislike shaking hands, and to them it is intolerable if their hand be held long in that of another; they escape, or tear away their hand. Many cannot endure the heat of an iron stove, but relish that of a brick stove covered with earthenware.

I could tell you many more strange peculiarities observed in certain men. But what are we to say of them? Are they fancies, the result of bad education; or bad habits, perhaps depending on local circumstances affecting health? It may appear so to those who only look at the surface; and this appearance has too often misled us, and caused us to be unjust to these persons. If these strange peculiarities indeed occurred singly, or scattered, accidentally, among all men, we might be justified in paying little attention to them. But a remarkable fact, hitherto regarded as unworthy of notice, alters the question essentially. All the above-named peculiarities of these persons occur, not singly, but always combined or associated in the same person. You will find, if you look, in one and the same person, most or all of these singularities together; and never, no, not in a single case, is one of them found alone. He who is a foe to yellow, shuns the mirror; he who loves the corner seat forces open the carriage windows; those who can sleep on only their right side faint in church; those who dislike brass, copper, or German silver, delight in cold simple food, and despise fat and sweets; they are devoted to salad, &c. &c. &c. And this goes on everywhere, in the same person, in an unbroken succession, from dislike of yellow to dislike of sweets; from the love of blue to the passion for salad. There is a solidarity, so to speak, of these strange likings and dislikings, in those who exhibit them. Experience demonstrates, everywhere around us, that he who has one of these peculiarities, as a general rule, has all the others also.

Hence it is very clear that they stand in an unmistakable connection with each other; and if this be so, it can only happen because all may be traced back to one fundamental connecting element, to a hidden source, common to all, and from which they all flow. Now if this source be found in

some men and not in others, it is obvious that from this point of view there are really two kinds of people; ordinary people who possess none of all these forms of excitability, and people who are peculiarly excitable and are affected in the way above explained by every apparently slight circumstance. These last we may properly call "Sensitives," for they are in truth frequently more excitable and sensitive than the sensitive plant. They are so, in virtue of their innermost nature, which they can neither lay aside nor control at will; and whenever we have regarded their peculiarities as mere fancies, or as selfish rudeness and ill-breeding, we have certainly done these persons injustice. They have enough to suffer from their peculiar and hitherto unrecognized sensitiveness in a society where no regard is paid to it, and are entitled to more consideration and forbearance than they have ever yet experienced. Their number is far from small; and we shall soon see how deeply these things, of which I have to-day only attempted to give you the first superficial notions, penetrate, in every direction, into the intercourse of human beings.

Letter II.

You have no doubt been able, making use of the marks I pointed out in my last letter, to discover among your acquaintance some who belong to the class I have named sensitives. It is not at all difficult to find them, for they are everywhere numerous. And if you do not at once find such as are perfectly healthy, you have only to enquire for such as have disturbed sleep, often throw off the bedclothes while asleep, speak, or even rise in their sleep, are much plagued with sick head-ache or migraine of short duration, or suffer frequently from transient pain of stomach; or complain of nervousness, and nervous changes of humour; who avoid large societies, and either confine themselves to a few friends, or love solitude. With few exceptions, all such persons are more or less sensitive.

But all these things are only the trivial sides of the matter. When we apply to it the touchstone of science, facts of far higher interest come into view.

Procure a natural crystal, as large as may be attainable, such as a crystal of selenite (gypsum), 10 or 12 inches long, a large crystal of heavy spar, or one of the rock crystals of St. Gothard, about a foot in length. Lay it horizontally across the corner of a table, or the arm of a chair, so that

both ends project freely, and desire a sensitive to place the hollow of his left hand near the ends of the crystal successively at a distance of 6, 4, or 3 inches. Before the lapse of half a minute, he will tell you, and this without any question or prompting whatever, and without his having previously the remotest idea what he is to expect, that from the upper, free, or pointed end of the crystal (that which in its natural position projected into the air), a delicate cool aura breathes on his hand; while from the opposite end (the broken end, by which it was originally attached), a something tepid reaches the hand. He will find the former sensation, the coolness, pleasant and refreshing; the latter, or the tepid feeling, disagreeable, and accompanied by an offensive, almost nauseous sensation, which, in a short time, will affect the whole arm, as with a sense of fatigue.

When I first made this observation, it was as new as it was puzzling. No one would believe it. I have, however, repeated it with hundreds of sensitives in Vienna, it has been repeated and confirmed in England, Scotland,* and France,

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* I have myself frequently made this simple experiment with persons of moderate sensitiveness. It is, notwithstanding its simplicity, a fundamental one, and enables us at the outset to dismiss the notion that these perceptions are caused by suggestion. In the first place, although many persons in the mesmeric sleep may be made to see, or fancy they see, anything directly and forcibly suggested to them, and although the same thing may be done with many others in the ordinary state, or at least in that modification of the ordinary state which has been absurdly called the biological state, yet in the experiments of the author and in my own, no attempt was made to produce either of these states. The subjects were strictly in their usual state. Secondly, not only no direct suggestion was made, but the greatest care was taken to avoid even indirect suggestion. No questions were asked; the subject was never told what he was likely to feel, but was simply desired to approach his hand to the crystal. If sensitive, he invariably described, spontaneously, his own sensations. And all who perceived anything, perceived exactly the same sensations in kind, although varying in degree. Many were illiterate; some educated; but all were ignorant of what they were to perceive, *and yet they all agreed.* Now I maintain that this agreement demonstrates that the sensations described were due to a *real objective cause*, and were not *mere subjective feelings.* A writer in the *North British Review* has endeavoured to shew that these sensations are purely subjective; but he has not explained how this can be reconciled to the fact that all have the same sensations when they make the experiment in the same way, while all observe the sensations to be reversed, if made to use

and any one may test it, for sensitives are to be found everywhere. If they hold the hand near other parts of the crystal, such as the lateral edges, they perceive here also, at one place the tepid, at another the cool sensation, but at all such points incomparably weaker than at the two ends, which are in polar opposition or contrast to each other. Of all this, non-sensitives perceive nothing.

Since these opposite sensations are excited without contact with the crystal, at the distance of several inches, nay, in highly sensitive persons at the distance of several feet, it was obvious, that from these, so to speak, semi-organized minerals, something proceeds, flows out, or is radiated; some-

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the right hand instead of the left; and all this, without any further suggestion than the general idea that when they are asked to approach the hand to the crystal, they are probably supposed likely to feel or perceive *something*. That two persons who never met, one in Vienna, the other in London, should thus agree in all the details of their sensations, if these were merely subjective, that is, fancies, appears to me, if not impossible, in the highest degree improbable. In no other mental functions do we observe any such identity of manifestation in the fancies of different persons. But that hundreds should thus agree, unless the sensations be caused by something which has a real objective or outward existence, appears to me the wildest and most preposterous assumption that ever had birth in a fanciful brain. Can any reason be given why, if these sensations be only subjective, the next subject who shall be tried should not associate the cool sensation with that end of the crystal which in all our experiments has been found associated with the opposite tepid sensation? It is obvious, that persons who only fancied sensations of which they had never heard, must, according to the law of probabilities, differ at least as often as, probably far oftener than, they agree. But as in fact they never do differ, any more than people do who observe the warmth of a fire and the coldness of ice, the conclusion is, in my humble opinion, unavoidable, that the cause of the new sensations is as real as the causes of heat and cold.

It would, I think, be interesting to know what Professor de Morgan, our great authority on the doctrine of chances, would say to the North British reviewer's doctrine of the uniform agreement of hundreds of different persons in their subjective feelings, or fancies, when asked to make certain trials, and told nothing of the expected result, and therefore only able to guess that something is to be felt. The learned Professor would confer a benefit on science if he would state the chances in favour of, or rather against, such a perfect agreement, say in 100 persons, with respect to only one phenomenon. The result would be both curious and instructive. We shall see further on some striking illustrations of the above argument.—W. G.

thing as yet unknown to physical science; and which, although we cannot see it (any more than we can heat, electricity, or magnetism, W. G.), yet makes its presence known by its action on the corporeal system. Now as sensitives are able to do, that is, to perceive, so much more, in the way of *sensation* than other men, it occurred to me that they might possibly excel us, with reference to certain points, in their powers of *vision;* and might perhaps be able to *see* something connected with these strange emanations *in the dark.* To test this, one dark night, in May, 1844, I took a very large rock crystal to the house of a highly sensitive young woman, Miss Angelica Sturmann. Her physician, Professor Lippich, so favourably known to pathologists, was accidentally present. We produced total darkness in two rooms, in one of which I laid the crystal in a place unknown to every one else. After remaining some time in the other room, in order to accustom her eyes to the darkness, we led the subject into the room where the crystal was. After a very short interval, she pointed out the spot where it lay. She told me that the whole mass of the crystal glowed, through and through, in a delicate light, and that over its point (or naturally free end) a light flowed upwards, of the size of a hand, blue, and in a continual undulatory motion, with occasional scintillations. It had the form of a tulip, and lost itself above in a delicate luminous vapour. When I turned the crystal upside down, she saw a dull, reddish yellow smoke rise from the opposite or broken end of the crystal. You may imagine what delight her statement gave me. This was the first of thousands of similar observations, which from that time forth till now I have made with crystals, varying the experiment in every possible way, and in which, by the aid of a large number of senitives, the fact has been ascertained beyond a doubt, that the sensations allied to touch, produced by crystals, are associated with luminous phenomena, which keep pace with the others, exhibit, as blue and reddish yellow, a polar contrast, and are only perceived by the sensitive.*

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* This experiment I have also frequently repeated, and always with the same results in kind, varying in degree, according to the grade of sensitiveness. To it the same remarks apply as those made on the cool and warm sensations in the preceding note. Granting that Miss Sturmann, having guessed that she was thought likely to see something in the dark room, did really see what she described, but only as subjective ideas, that is, fancies or dreams, is it conceivable that the next subject, not knowing what Miss Sturmann had fancied, should fancy exactly the same things in kind, yet dif-

Should you wish to repeat these experiments, I must warn you, that it is only in *absolute darkness* that you can expect to succeed. The light from crystals is so delicate, so extremely feeble, that if but a trace of any other light be perceptible in any part of the room, this suffices to dazzle the sensitive; that is, to blunt, for the time, his capacity of perceiving the stimulus of so weak a light. Moreover, few persons are so highly sensitive as Miss Sturmann, or are able to perceive this delicate light after so short a period passed in darkness. With sensitives of the middling degree, from one to two hours must generally be spent in absolute darkness, before their eyes are freed from the stimulus of day-light or lamp-light, and sufficiently prepared for the perception of the light of crystals. Nay, I have had many cases, where persons of feeble sensitiveness, after three hours in the dark, were still unable to see anything, and yet in the course of the fourth hour succeeded in seeing the light from crystals very

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ferent in degree? Who does not see, that if the light were entirely subjective, there is no reason whatever why that from the point of the crystal should not be, to the second subject, green, red, orange, yellow, or white, as well as blue? Yet it is invariably blue; that is, blue invariably predominates at that end, and reddish yellow at the other, in the statements, not only of the second but of the two hundredth subject. Moreover, why should the new subject see the undulating motion, the sparks, the luminous vapour or smoke above, and why should he see more light at the point than at the broken end, &c., &c.? We shall find, by and bye, that with the most highly sensitive, the light at both ends is described as composed of all the prismatic colours, blue however always predominating at the one end, and reddish yellow at the other. And in the minutest details of the arrangement of the colours, nay, in facts quite unexpected connected with them, and in all the changes produced by change of form in the poles of magnets, (which, as we shall see, are also luminous,) these highly sensitive subjects are still found, without concert, and without the shadow of direct or specific suggestion, to agree as perfectly as they do in the general facts. To my mind, this is utterly irreconcilable with the idea of the exclusively subjective nature of the phenomena, and indeed with any view but that which admits the existence of an external, a real, an objective cause of these phenomena. I beg most particularly to call the attention of the reader to this point, because it is the turning-point of the whole controversy; and I beg him, in reflecting on it, to bear in mind, that all direct suggestion, and all questions, are avoided, so that, as I formerly stated, the subject can, at the utmost, only guess that something is to be seen, and can have nothing to guide him as to what that something is, unless there be an objective reality concerned.—W. G.

well, and in convincing themselves of the objective reality of the phenomena*

You are probably impatient to learn what all this means, and to what part of physics or physiology these phenomena belong, with reference to their objective and subjective nature. They are not heat, although they produce sensations resembling those of cool and tepid; for here there is no imaginable source of heat; and if there were, it would be perceptible not only by sensitives, but by others, or at least by

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* Here I would remark, that, as so happens in all branches of science, we may learn much from apparent failures. If the doctrine of the exclusively subjective nature of the phenomena be true, or if they depend on involuntary suggestion (I have shewn that all direct suggestion is avoided), there is no conceivable reason why the fancies or visions should not at once appear. Where suggestion is employed, whether intentionally or accidentally, we never observe this delay in the results. If this were otherwise, biological or rather suggestive phenomena could not be publicly exhibited, as they are. Indeed, one of the most striking facts about these suggestive phenomena is, the instantaneous efficacy of the suggestion, whether it be oral or pantomimic.

I would further observe, that to my certain knowledge, many of those who have attempted to repeat Reichenbach's experiments have utterly neglected the conditions indispensable to success. I have seen such experiments tried in a room where the daylight entered at twenty chinks, and in another where lamps were burning in the next room and the door was opened every minute. The experimenters obviously had not even read Reichenbach's work, in which all the necessary precautions are fully detailed, but had only a vague general idea that he had stated that crystals, magnets, &c., were luminous in the dark. I have seen the crystals and magnets held in the hands or on the knees of the experimenter, which, according to Reichenbach, extinguishes the light. I have seen these objects held at 6, 8, or 10 feet from the subject, while the author states 40 inches to be the average distance at which the light is best seen, and mentions that in many cases the distance was much less. I have seen a man sitting close to the subject on each side, which again, according to our author, interferes with his sensitiveness, and the experimenters, in spite of all these mistakes, have expected the result in a few minutes, without even an approach to absolute darkness. When I pointed out some of these causes of failure, I was told that if there were truth in the statements of Reichenbach, the light must be visible in spite of these little blunders. I greatly doubt whether one of Reichenbach's opponents has even studied his account of the conditions to be observed, far less actually observed them. I, however, have done so, and have obtained the same results, *pro tanto*, as he did.—W. G.

a delicate thermoscope. They are not electricity, for there is no exciter, no source for the perpetual current which here flows, if it be electrical; and electrical conduction has no influence on them. They cannot be magnetism or diamagnetism, because crystals are not magnetic, and the diamagnetism of crystals does not always act in the same direction, but often in various, and even opposite directions, which is never the case in our phenomena. Common light they are not, because, although light is associated with them, mere light never causes cool or tepid sensations, &c. &c.

What then are these phenomena? If you must positively know, you compel me to answer, that I cannot tell. I perceive the evidences of the existence of a dynamide (imponderable force) for which I cannot find a place under any of the known imponderables. Unless I have formed a very erroneous conclusion from the facts observed, its true position will be in the middle of Magnetism, Electricity, and Heat. But it cannot be identified with any one of these, and in this state of matters, I have, for the present, given to it the name of Od (pronounced *ode*), or of the Od force or Odic force. The etymology of this word I shall give further on.

Letter III.

The Sun, the Moon, the Prismatic Colours.

You are now acquainted with what I call "sensitives," and with the element or imponderable to which their sensitiveness refers, and which I have named "od," or the "odic force." But we have only as yet touched a mere point of the hem of the ample garment of this force, in which all nature is wrapped. For this remarkable influence not only gushes forth from the poles of crystals, but flows also from many other sources in the universe with equal or even superior energy. Let me direct your attention to the heavenly bodies, and first of all to the sun. Place a sensitive in the shade, and put into his left hand an empty barometer tube or any other glass rod, or even a rod of wood. Let him now hold the rod in the sunshine, while his hand and body remain in the shade. You will soon hear, from this simple experiment, something that will surprise you. For you will naturally expect that the subject will feel the rod becoming warm; surely the rays of the sun can do nothing but warm it. But, on the contrary, he will tell you exactly the reverse.

The sensitive (left) hand will perceive various sensations, but the result will be, a decided feeling of coolness. If he draws back the rod into the shade, this coolness will disappear, and he will feel it become warm; on again holding it in the sunshine, it will again become cool, and he can thus alternate and compare the accuracy of his sensations. There are therefore circumstances, exceedingly simple, but hitherto unobserved, under which the direct rays of the sun not only do not produce warmth, but most unexpectedly even excite a feeling of cold. And of this coolness, the sensitives will say, that it entirely resembles in its mode of action that possessed by the point or upper end of the crystal. Now if this coolness be of the nature of od, it must in some way be capable of assuming the form of a luminous emanation in the dark. This you will find to be the case if you will repeat the following experiment of mine. I brought one end of a copper wire into the dark chamber, the other end being in a well-lighted room. I then placed this latter end in the sunshine, and I had hardly done so, when the sensitive in the dark chamber saw that part of the wire which was in the dark begin to be luminous, and from the end of it a small flame rose, about the size of a finger. The rays of the sun therefore poured into the wire odic influence, which the sensitives in the dark saw flowing out in the form of light.

But you may go a step further. Let the sun's rays fall on a good prism, and cause the coloured spectrum to fall on the nearest white wall. Now let the sensitive with the glass rod, held in the left hand, try the different colours of the spectrum or ires one after another. If he holds it in the air so as only to absorb the blue or the violet ray, he will perceive a strong and most agreeable coolness, much cooler and purer than from the entire sunshine. But if he holds the rod in the yellow, or still more in the red ray, this pleasing coolness will instantly vanish, and a most disagreeable tepid feeling will soon oppress the whole arm. You may allow the sensitive, without the rod, simply to hold the finger of the left hand in the different colours, the result will still be the same. I only used the rod to exclude the action of the heating rays on the hand by means of a bad conductor. These effects of the decomposed sunlight will be found exactly similar to those of the crystalline poles. From this you will see that odic force of both the kinds observed in crystals is contained in the rays of the sun. It flows to us from this luminary at every moment of the day along with light and heat, in incalculable quantity, and constitutes a new and powerful agent, to be added to those already detected in the

rays of the sun, and the full bearing of which we cannot at present even conceive.*

And now permit me to request you to look back for a moment to the lovers of blue and the haters of yellow of my first letter.

Have we not seen, that that pole of crystals, which gives out a grateful coolness, also emits a blue light? and do we not find here, in a totally different manner, that the blue ray of the sunlight yields a most delightful refreshing coolness? On the other hand, do not the reddish yellow light of the opposite crystalline pole, and the yellow and red rays of the spectrum, excite unpleasant tepid sensations in sensitives? You observe that in these two cases, so far apart, it is always blue that excites agreeable and reddish yellow that causes disagreeable feelings. You have thus the first indication, that may induce you to hesitate before passing a hasty judgment on what might be supposed the caprices of certain persons, who are, in truth, sensitives. You see that in the blue and yellow of the colours we use, there must be something more hidden than the mere optical action of these colours on the retina; that a deep-seated instinct for an unknown, subtle something, here guides the feelings, and consequently the judgment, of our sensitives; and that this subject is worthy of the utmost intensity of our attention.

But even without reference to colours, let me mention another easy experiment, which I have often made, in order to distinguish the odic state of different parts of the solar rays. Polarize the light by letting it fall, in the usual way, at an angle of 35° on a bundle of glass plates. Then let the sensitive place the end of the rod, held in his left hand, alternately on the transmitted and in the reflected ray. You will invariably hear, that the former yields to the hand through the rod odic coolness; the latter, the unpleasant tepid sensation so often described.†

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* Scientific men have been compelled, of late years, to admit more than one new constituent of the sun's rays. We had first the calorific rays, then the chemical, now better known as the photographic, rays, both invisible. Why should we wonder at the discovery of another element in the sun's rays, invisible to the ordinary eye, and in daylight, like these, but visible to sensitives in the dark, and acting on the sensitive nerve, as the photographic rays do on the sensitive plate or paper? And who shall say that even this exhausts the list?—W. G.

† These experiments, as well as that which follows, are good examples of the kind of experiments alluded to in a preceding note,

If you feel inclined, you may puzzle the chemists a little. Take two exactly similar glasses of water; place one in the

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in which I hold it to be impossible for a certain number of persons, when simply asked, separately, to describe what they see or feel, (but without any suggestion whatever, beyond the unavoidable one, inherent to the experiment, namely, that they may suppose they are expected to see or feel *something,*) should agree exactly in their descriptions, (as the writer in the *North British Review* seems to think they would do,) unless their sensations and perceptions had a real, external, objective cause.

A subject is brought into the dark chamber, and, after some time, the experimenter places a crystal, previously concealed, in a certain position, of course unknown to the subject. He, the subject, declares that he sees a light at a certain point, which is found to be the natural acumination or free end of the crystal. When the other end (unknown to him) is exposed in the same place, he speaks of a light also, but different from the former. The first was bluish, the second reddish. The first gave to his left hand a sensation of pleasing coolness; the second, an unpleasant tepid feeling. The experiment is repeated, always in the dark, many times, and he never contradicts himself, but always finds bluish light and coolness at one end of the crystal, reddish light and tepidity at the other, although he has no means of knowing which end is presented to him. Next day, a second subject is tried, and the very same results are obtained, although this subject knows nothing of what the other has said. And the trial is repeated with numerous subjects, and uniformly with the same results.

Now the writer in the *North British* seems to think that such agreement is possible, even although the sensations or perceptions are entirely subjective or imaginary.

I maintain on the contrary, that no two persons, describing imaginary, subjective sensations, and free from all communication or suggestion, could agree in the above details. For there is no conceivable reason, unless the phenomena be objective, why the second should imagine himself to perceive blue light and coolness at the same end of the crystal as the first did, rather than at the other end. Nor is there any reason why he should associate blue with coolness and not with tepidity; nor why he should think of blue and red, as his predecessor did, rather than of green and yellow. If we confine ourselves to the few details above alluded to, every one will see that two persons, separately describing imaginary sensations, would be sure to differ on some of those points, and could not agree on all, unless by mere hazard.

Now it is here that the doctrine of probabilities applies. Granting, for the sake of argument, that two persons could, by mere hazard, agree in the above details, does any one believe that 10, 20, or 100 persons, unknown to each other, could possibly thus agree? I have the authority of Professor de Morgan, surely a sufficient

reflected, the other in the transmitted rays. At the end of six or eight minutes cause a sensitive to taste both. He

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one, for saying, that, in a case far less complex than the above, namely, where there is but one point, on which the answer may be "yes" or "no," the chances against 100 persons agreeing in giving the same answer, by mere hazard, (and if they describe an imaginary, not a real object, they can only agree by hazard,) are about 12680000 . . . . . 27 ciphers to 1; that is, more than a million of millions of millions of millions, of millions to 1 against such a result.

This inconceivable number represents the chances against 100 persons, without communication or suggestion, agreeing in their answer to such a simple question as this: "Do you see anything at present?" (in the dark room.) It exactly represents the chances against the whole 100 answering, "Yes, I see a light," *by mere hazard*, or, what is the same thing, *by mere fancy*.

But if this calculation of chances be embodied in a number so vast that we cannot even form a conception of it, what must be the extent of figures required to express the chances against these 100 subjects agreeing in declaring that they see at one time blue light, accompanied with grateful coolness sensible to the left hand, and at another red light, with an unpleasant tepid sensation! when it appears, although unknown to them, that the former observations invariably apply to one end of the crystal, the latter to the other end. Here we have not a simple yes or no in reference to one phenomenon, but two phenomena, the light and the sensation, connected with a certain point or points in the crystal, which makes a third phenomenon, and this twice over, once at each end. So that we have at least six phenomena, observed to occur invariably in the same order, by 100 persons. And since the whole phenomena are uniformly reversed, when the right hand is used instead of the left, the actual number of facts in question is twelve, in regard to which there is a perfect agreement. Let the reader reflect whether such an agreement be even conceivable, in reference to unknown sensations, *if purely subjective*. But if the causes of the two lights, and of the two sensations, be *truly objective* and *external*, and moreover connected, by some natural law of polarity, with the opposite ends of the crystal, and also with the two hands, then nothing is more probable than such a perfect agreement as I have mentioned.

I am much within the mark, when I say that the author has had upwards of 200 subjects, who have agreed invariably, not only in regard to the phenomena above mentioned, but also in regard to a very large number of others, without one example of inconsistency in their statements. The only point in which they differ is that of the *degree* or *intensity* of the light or of the sensations, &c., according to the degree of their sensitiveness. One may see only a faint luminous vapour where another sees a flame six or eight inches high. One may see a blue flame of small size, while another may

will at once tell you, that the former tastes cool and slightly acidulous, but that the latter is tepid and has a sort of bitterness. Or place a glass of water in the blue light of the spectrum, and another in the reddish yellow; or place one in contact with the free end of a large rock crystal, the other at the opposite end, formerly attached to the rock, now broken. In all these cases you may be quite sure, that the former will taste acidulous and very agreeable, the latter, bitterish, harsh, and even nauseous. The subject will gladly drain the one, if you allow him; but if you compel him to drink the other, you may meet with what happened to me, namely, that he soon afterwards is attacked with violent vomiting. Now give the two glasses of water to the che-

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see a large flame, exhibiting all the prismatic colours; but still, in the former case, both will agree in the bluish colour of the light, and in the latter, while one sees only blue light, the other sees a rainbow in which blue predominates over all the other tints. And so with the red at the opposite pole. Not one sensitive has ever seen red predominating, or red alone, when the others have seen blue in the same way. And yet none of them have known what the others saw, nor, if they had known it, could they possibly know, in the dark chamber, which end of the crystal was presented to themselves at any given time. And if both ends are presented, one at a time, for a hundred times in succession, not alternately, but according to any arbitrary succession, they never contradict themselves, although it is the operator alone who knows which end he is presenting, either by its form, or by a mark attached to it. To the accuracy of all this I can myself testify, as I have tried similar experiments with several sensitives, although with a far less number than the author.

I cannot avoid once more urging on the reader the utter impossibility of any such agreement as the above in the statements of persons describing imaginary phenomena, when the experiments are performed with due caution, as those of the author most certainly have been. It is not every one who can make an experiment worthy of being recorded, and there are few who can properly appreciate the experiments of others. I cannot too strongly express my conviction that those who suppose the author to have neglected any precautions against suggestion or any means of ensuring a genuine and trustworthy result, either have not studied the details of his method, or are quite incapable of judging of the value of scientific evidence. It is certain that no one of his opponents or critics has yet been able to detect a flaw in his mode of procedure, while most of their criticisms abundantly prove that they have neither carefully studied nor even understood it. Let the reader only examine that method carefully, and I am sure he will admit that it is unexceptionable.—W. G.

mists; and let them detect the acid and bitter principles in them, *if they can.*

You may now try the moon's light, as you have done that of the sun; and you will obtain analogous results, but in part reversed. If the sensitive places the end of the glass rod in the full light of the moon, the rod being in his left hand, he will experience not a cool, but a tepid, sensation. And he will find a glass of water which has stood in the moonlight more tepid and nauseous than one which has stood in the shade. Every one knows how great an influence the moon exerts on many persons. Now those who are thus affected, are without exception sensitive, and commonly very much so. And since the moon can be shewn to produce effects due to odic influences, while its action on the insane agrees with that of other sources of od, the moon is, as a luminary which gives out odic force, of great significance and importance to mankind.

With the solar and lunar rays, then, we receive so abundant a supply of this force, that we can use it conveniently for many simple experiments. How vast the influence exerted by the odic force, not only on man, but on the whole animal and vegetable creation, must be, I shall presently shew you. Od, according to what we have already seen, is evidently a cosmic dynamide, that is, a universally diffused imponderable force, which radiates from one heavenly body to another, and, like heat and light, enwraps the universe.

Letter IV.

Magnetism.

These letters relate to the odic force and to magnetism; but you may ask, "why to magnetism? what has magnetism to do with the matter?" Now I am almost inclined to say, in answer, "little or nothing." But it has pleased the world to apply the term "magnetic" to a number of phenomena connected with our subject; and for the present I must conform to this nomenclature. The inducement to do so is derived from the fact, that ordinary magnetism carries along with it odic force, just as we have seen that the sun's rays and the moonlight do; as we see this force emanating from crystals, and from many other sources, which have nothing whatever in common with magnetism, as generally understood. Let us now cast a glance on the mutual relations of od and magnetism.

Lay a good bar magnet across the corner of a table, as you did the crystal, so that both ends project freely: place the table so that the bar comes to lie in the plane of the magnetic meridian, like the needle of the compass, with the north pole towards the north, and the south pole towards the south. Now bring a sensitive near it, and let him bring the hollow of his left hand gradually near, first to one pole and then to the other, at the distance of from 4 to 6 inches. You will now hear from him precisely the same statements as in the case of the crystal; namely, that one pole, that which points to the north, sends a cool aura to the hand; while the other, pointing to the south, gives out an unpleasant tepid aura. You may now place a glass of water at each pole, and let the subject taste it after six or eight minutes. He will tell you that the glass at the northward pole tastes fresh and cool, the other warm and nauseous; and if you once more annoy the chemists by insisting on an explanation of this fact, they will get angry, and in order to escape from their embarrassment, they will unhesitatingly deny the plain and simple observation, and will assert that it is not true. You may smile at the manner in which these learned authorities now and then expose their own weakness; for a natural truth cannot be changed into untruth by a denial not founded on investigation. These learned sceptics will soon be compelled, in spite of their opposition, to adopt a more rational view.

You will readily understand, that the same expectations which led me to try the crystals in the dark, occurred to me in reference to magnets also. I made the first trial with Mdlle. Maria Nowotny in Vienna (April, 1844), and I have since that time repeated it hundreds of times with other sensitives in the dark chamber. It was to me a pleasing satisfaction to see my expectations confirmed, and to hear my subjects declare, that at each end of the bar a flame burned, bright and fiery, smoking and emitting sparks, blue at the northward, yellowish red at the southward pole. But you should make for yourself this very easy experiment, and vary it, by placing the bar vertically with the southward pole upwards; you will then hear that the flame increases, and if the magnet be very strong, that it reaches nearly to the roof of the room, and there causes a round illuminated space on the ceiling, 1, 2, or 3 feet in diameter; so bright, that if the subject be highly sensitive, he will be able by its means to describe any pattern that may be there painted. But I must warn you to neglect none of the precautions which I have already pointed out for the purpose of ensuring *absolute dark-*

ness, nor that of preparing the eyes of the subject by keeping him one, two, or three hours in that darkness. For if this be neglected, he will see nothing, you will labour in vain, and the accuracy of my statements will be in danger of most unmerited suspicion.

The luminous appearance will appear still more beautiful if you employ a horse-shoe magnet, placed vertically with its poles upwards. I have one of nine plates, with a supporting power of 100 pounds, from each pole of which all sensitives see a delicate light flowing. The two lights do not attract, nor in any way interfere with, one another, as the magnetic forces of the two poles do, but rise quietly in parallel lines, exhibiting a multitude of white luminous points, and form together a pillar of light of the height of a man, which all who saw it describe as strikingly beautiful. It rises to the ceiling, and there forms a round luminous spot nearly six feet in diameter. When this experiment has continued some time, the whole room gradually becomes visible. If such a magnet be placed on a table, the flaming emanation illuminates the surface of the table and the objects on it to the extent of a yard all round. When the hand is placed between the flame and the table, a distinct shadow appears. If a flat body, such as a board, or a plate of glass or of metal, be held horizontally in the flame, the flame bends round and flows under it, like any ordinary flame, when a pan is held in it. When we blow or breathe on the flame, it flickers, exactly like that of a taper. If a current of air occur, or the magnet be moved, the flame bends to the side towards which the air moves, like a torch in motion. Its light may be condensed into the focus of a lens or burning glass. This phenomenon is therefore very material, and has many properties in common with ordinary flame. If two such flames meet, they neither attract nor repel each other, but mutually penetrate each other, and both proceed unimpeded, if of equal intensity. But if one be stronger, that is, have more projectile force, as it were, than the other, the former divides the latter, which passes round it on both sides. The same thing happens when a rod is held in the flame; it splits or divides the flame, which again unites beyond the obstacle. And just as crystals were seen by sensitives to be luminous through their whole substance with a delicate light, so does the steel of the magnet appear as in a whitish glow throughout. The very same phenomena are observed in electro-magnets.*

* The luminous phenomena connected with magnets are to be

The properties just described, as you may easily perceive, exhibit no parallelism with ordinary magnetism, but are peculiarly and distinctively odic. If we compare a crystal of gypsum and a bar magnet of about equal weights, we find that the odic emanations of the similar or homologous poles are not essentially different either in regard to the light they give forth, or the sensations they excite; nay, the crystal is even more powerful than the magnet; its coolness and tepidity are more marked, its light more intense. But the crystal has no magnetism, in the ordinary sense: that is, it has no action on the needle, and does not attract iron filings. We have here, therefore, at one view, od and magnetism coupled together in the magnet, and od alone in the crystal; the od in both cases of equal power. We cannot therefore possibly regard od as merely an accompaniment of magnetism, or as one of the properties of magnetism, or as magnetism itself. In the crystal it appears entirely separated from magnetism, and I shall adduce hereafter a number of equally striking examples where od occurs in the highest intensity, while not a trace of ordinary magnetism is present. Od must therefore be regarded as an independent dynamide or imponderable force, which occurs along with magnetism, as it occurs also in connection with crystals, with the solar rays, and with many other natural phenomena, to be afterwards noticed. We know the great resemblance between magnetism and electricity; we know, that the one occurs so much associated with the others and *vice versâ*, that we are tempted to consider them identical. This is the case also with light and heat; one of which calls forth the other, and which at every moment are mutually converted one into the other. Yet we have not yet been able to detect the common source from which both proceed. So is it with od. We suspect, indeed, that all these imponderable phenomena are ultimately derived from one common origin; but so long as we are unable to demonstrate this community of origin, so long have we no alternative but to treat of electricity, magnetism, light, heat, &c., &c., as so many separate groups of phenomena. And since we see that the varied phenomena of od cannot be ranged under any of the known imponderables, we have here also no alternative but to collect them separately, and to arrange them as an additional group of the same kind.

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found, with all the necessary evidence, fully detailed in my late work, *Researches on the Dynamedes of Magnetism, Electricity, &c., in their relations to the Vital Force.* Brunswick. Vieweg, 1850.

That these odic phenomena are in no degree inferior, either in extent or in importance, to those other groups of phenomena which have already been naturalized in the realms of science, the letters which are to follow will satisfactorily demonstrate.

Note by the Editor.—From the time that the researches of the author first appeared, I have been firmly convinced both of the accuracy of his observations and the soundness of his arguments above developed, by which he establishes the claim of od to a place among the imponderables. It is difficult to see why there should be so fierce an opposition to this conclusion. One would think, to hear the remarks of sceptics, that they were quite familiar with the nature and essence of the admitted imponderables, and yet it may safely be said that of these points we know absolutely nothing. We cannot tell whether heat, light, electricity, &c., be forms of matter or forms of motion; whether they be fluids, or merely forces. We know nothing of them, except their effects on matter, or on our senses, and from these we have deduced a few of the laws which regulate them. And we know, if not to the same extent, yet the same kind of facts in reference to od. Many persons are shocked at the idea of such a force acting at a distance, although invisible. But does not light, does not magnetism, act at a distance? and is magnetism visible any more than od? Again, people will not admit that this new force should be able to pass through a stone wall. But magnetism and heat do so, and the passage of light through glass is not less wonderful.

The true origin of the general disinclination to admit the existence of the supposed new imponderable, influence, or force, appears to be this; that people cannot make up their minds to believe in the existence of an agency, the effects of which are not at once obvious to every one. Now it is true, that in the present state of our knowledge, the number of those who can, in one way or other, perceive the odic influence, is limited. But even as it is, this number is very considerable, amounting, according to the author's experience, to about one-third or one-fourth part of mankind; that is, in Europe. The experience of Dr. Esdaile in India tends to prove that the natives of that country are much more uniformly sensitive to mesmeric influence, which seems to be identical with the odic, than Europeans are; and it is probable that if men lived a perfectly natural life, all would be found sensitive. At all events, this is but a question of degree. There are degrees of electricity altogether imperceptible to the average human nerve, which yet act powerfully on the galvanoscope; and when we shall have obtained, either a sufficiently delicate odoscope or odometer, or the power of concentrating and accumulating the odic, as we do the electric, force, the existence of the former may be demonstrated to all. Indeed, we may say that this has been done already, by the magnetoscope of Mr. Rutter, as modified by Dr. Leger. This instrument is set in motion by an influence proceeding from the finger, while, by a simple and ingenious con-

trivance, we have the clearest proof that the motion is not caused by involuntary jerks or impulses from the muscles of the experimenter. It cannot be doubted that many improvements will yet be made in reference to this matter. But even should this not take place, yet I hold, that the statements of the sensitive, compared and controlled as has been explained by the author, and illustrated in the preceding note, are, in a scientific point of view, as satisfactory as if we ourselves were sensitive and experienced the sensations described. Among the author's subjects were several scientific men, and these had the evidence of their own senses to the facts. But how many facts in physics, astronomy, mechanics, chemistry, physiology, anatomy, &c., &c., are daily received without hesitation by thousands who never saw one of them, and know nothing of them but by the statements of others, and therefore nothing more than we do of the odic phenomena from the statements of sensitives? Moreover, the reader of these letters will perceive that it is far from improbable that there are many things, perceived by all, which may be found to depend on the odic force, when we come to know more about it. In order to investigate with success natural phenomena, perceptible to others, but not to ourselves, all that is necessary is, that the experimenter should know how to conduct his experiments so as to get at the truth; and this the author has done, if ever man did so. We shall no doubt ere long have a sensitive who will devote himself to the study of these phenomena, and will speak from his own sensations. But this, although desirable, is not indispensable, because nine-tenths of our knowledge are derived from the reports of observers, and not from our own personal observation.

All these considerations are, I humbly conceive, sufficient to justify the author in admitting a new agency of the same class as the known imponderables; while neither he nor any one else can say what is the real nature even of the best known of the admitted agencies of this class.—W. G.

Letter V.

Animal Magnetism.

Of late we have again been hearing much of that strange and wonderful thing, which, more than eighty years ago, was, by Mesmer, named animal magnetism. Our fathers and grandfathers rejected it, and supposed it dead; but it always reappears, and will not die. What is the explanation of this extraordinary tenacity of life? Is it to be explained by "lies, imposture, and superstition," in which gentle terms a celebrated physiologist of Berlin has characterized, and, as he supposed, finally extinguished it?* Let us see, whether

* Dr. Dubois-Reymond.—*Zoist.*

those have acted well and rationally, who knew of no better course of conduct than to adopt and reverence that opinion and others like it.

Let us at once, without preface, take the bull by the horns. Place a subject of moderate or of very high sensitiveness in the (absolutely) dark chamber, and take with you also a cat, a bird, a butterfly, if you can get one, and some plants in blossom. After the lapse of an hour or two, you will hear strange things from your subject. The flowers will come out of the darkness and become visible. At first they will be described as a diffused grey vapour or mist, seen coming out of the black of the general darkness. Presently brighter parts will appear. At last these will separate distinctly, the individual flowers will become visible, and by degrees more and more luminous. When I placed before the late distinguished botanist, Professor Endlicher, who was of average sensitiveness, a plant under the above circumstances, he cried out with astonishment and almost with terror, "It is a blue flower; it is a Gloxinia." It was, in fact, *Gloxinia speciosa;* var: *cærulea,* which he thus saw in total darkness, and the form and colour of which he was able to distinguish. Now we cannot see without light; light must therefore have been present, and that in no small amount, since it sufficed to shew not only the form but the colour of the flower. And whence came this light? It came, in truth, from the plant itself; the plant was luminous. Pistils, stamens, anthers, corollæ, and stem, all exhibited a delicate light; even the leaves were visible, though dimmer. The whole appeared in a soft glow, which was brightest in the organs of fructification, and brighter in the stem than in the leaves. The butterfly, the bird, the cat, all will become visible in the darkness; some parts of them will become luminous, and will move about as they move. But you will soon be told by the sensitive that he sees yourself. You will at first appear to him as a whitish shapeless man of snow; next like an armed figure with a high helmet; and finally, terrible, in the form of a luminous giant. Now tell the sensitive to look at his own person. He will be astonished to find himself luminous; not only his arms, legs, and breast, but the whole body will be visible, shining through the clothes. Direct his attention to his hands. They will first resemble a grey smoke, then a dark outline on a feebly luminous ground; at last the fingers will appear, and will exhibit the appearance they have when held before the flame of a lamp; that is, they will be translucent. The hand will seem longer than it really is; because from each finger proceeds a luminous prolongation, which,

according to circumstances, may be as long as the finger, or only half the length. The hand will thus appear, in consequence of these fiery appendages, to have twice its usual length. The last joints of the fingers will be the brightest, and in these, the roots of the nails will exhibit the most intense light.

When the first surprise at these hitherto concealed phenomena has subsided, and you enquire as to the colour of the light, you will be again surprised to hear that this is not the same in different parts of the body; that the right hand shews bluish, the left yellowish-red light, and that therefore the former are less bright than the latter; that the same difference occurs between the feet; that the whole right side of your face appears darker and more bluish than the left; nay, that the whole left side of your person appears bluish and darker, the whole left side yellowish red and decidedly brighter. You will at once perceive that you have here stumbled on the same contrast of colours which occurred to you in the light from crystals, in that of the sun, and in the flames of magnets.

Shall we find the parallelism between coolness and blue light, tepidity and reddish light, which was observed in all the preceding experiments, also here in the light from the human body? You may think this doubtful, and yet, if it were not so, the nature of the latter light would be enigmatical. I made the following experiment with the carpenter, Bollmann, in Vienna, aged 50, a good average sensitive (August, 1845). I placed my right hand in his left, so that our fingers crossed, but hardly touched each other. After the lapse of a minute, I replaced my right hand by my left. I thus alternated the hands several times, and I soon found that the subject felt the right hand, which gave bluish light, cooler than the left, which gave reddish light, the latter appearing to him much warmer. I had found what I sought. I repeated the experiment with more than a hundred other sensitives, and obtained the same result in every case. I next extended the comparison to the feet, the two sides of the body, the cheeks, ears, eyes, nostrils, and even the two sides of the tongue,—and this with a hundred variations. I invariably obtained the same answers; namely, that the left hand of the sensitive felt the whole right side of other persons, whether male or female, cool, and the whole left side warm. Thus you perceive that man is polarized laterally from right to left, exactly and with the same signs as a crystal is between the poles of its principal axis, or the magnet between north and south, and the solar light between

blue and reddish yellow. And since the effects and their signs are the same, we are entitled to conclude that the causes are the same. This means, that the human body gives out od, and this, in the same two forms which we have found in all other sources of od. I have caused sensitives to try cats, fowls, ducks, dogs, horses, and cattle in the same way; and all yielded the same results. Plants, examined from the root to the leaves, shewed themselves subject to the same laws.—Thus the whole of living organized nature shines in odic light, and overflows with odic influence: and when you regard this comprehensive and wide-spread fact in its bearing on universal nature, a new day will dawn for you in reference to that which has been hitherto so improperly named animal magnetism. I shall now attempt, aided by the light of theory, to make with you a rapid excursion into this obscure and confused territory. I have just furnished you with the key of the gate which leads to it.

(These Letters will be continued in the next Number.)

II. *How to write an article upon Anæsthesia and Anæsthetic Agents; or, hints for British and Foreign Medical Reviewers.* By Anti-Glorioso.

"It is seldom given to individual men to emancipate their minds from bondage to the prejudices of their profession. To *professional assemblages* that freedom of mind is always unknown and unattainable."—Sir J. Stephens, *Lectures on the History of France*, vol. ii., p. 354.

"As Hobbes has well observed: were it for the profit of a governing body, that the three angles of a triangle should not be equal to two right angles, the doctrine that they were, would, by that body, inevitably be denounced as false and pernicious. The most curious examples of this truth are to be found in the history of medicine. For this, on the one hand, is nothing less than a *history of variations*; and on the other, only a still more marvellous history of how every successive variation has, by medical bodies, been first furiously denounced, and then bigotedly adopted."—Sir William Hamilton, *Discussions on Philosophy*, p. 638.

TO THE EDITOR OF THE ZOIST.

April 25th, 1853.

Sir,—Bishop Berkeley asks in one of his "Queries," "whether it is not natural to wish for a benevolent physician?" The answer is so obvious, that to a reader, who does not understand the ironical nature of the good Bishop's writings, the question might appear like an absurdity. But there is more in that query than meets the ear on its first hearing. The question had its rise from the large experience

of Berkeley in the ways of this world. Though Pope has said of him in one of his memorable lines, that he had "every virtue under heaven," his virtues, nevertheless, were not in such an unsophisticated condition as to interfere with his thorough appreciation of human conduct. He had, in fact, extensive knowledge of the world. And when he asks, whether it is not natural to wish for a benevolent physician, he knew too well what a tendency routine and professional bigotry have to warp the holiest feelings of the medical heart.

Many of your readers will remember the angry discussion that took place at the meeting of the Medical and Chirurgical Society after the account was read "of a case of successful amputation of the thigh during the mesmeric state without the knowledge of the patient," which operation took place in the district hospital of Wellow, Nottinghamshire. The patient was a labourer named James Wombell. He had suffered for nearly five years from neglected disease of the left knee, the interior of the joint of which was found after the amputation extensively ulcerated. The slightest motion of the joint was attended by the most excruciating agony: and he had not slept more than two hours in seventy. At the time of the operation the patient's sleep was most profound: his countenance never changed for a moment: his frame rested in perfect stillness: not a muscle was seen to twitch: and to the end of the operation, he lay like a statue. We are so familiar at this time with operations of the same insensible character, that it is unnecessary to enter more into detail. It may be as well, however, to add, that the mesmeriser, the surgeons, and the witnesses were all parties of high character and respectability, and that nothing was wanting towards verifying the truth of the report.*

After the paper was finished, Mr. Coulson, a surgeon practising in the city, asserted that the paper ought never to have been read, for the only point of interest was the non-expression of pain, and that was a common thing, and he had no doubt the man had been *trained to it*. He also observed to a gentleman who was present, that it was all "stuff." Dr. Moore, a physician-accoucheur, then living in Saville Row, immediately followed, observing, that such a statement ought to have been accompanied by *affidavits*, and asked if "affidavits before the Lord Mayor or some other magistrate had been made." Insensibility to pain was at that day so incredible a thing, that a physician calls loudly for affidavits in confirma-

* See Elliotson's *Numerous Cases of Surgical Operations without Pain*, published *ten years* ago.

tion of the evidence. Mr. Blake, a young surgeon, next said that Wombell "*shammed.*" Mr. Alcock, another surgeon, followed in the same line of argument. Dr. James Johnson then said that he would not have believed the facts mentioned in the paper, had he witnessed them himself. Another doctor, named Truman, followed in the same strain with the preceding speakers. Dr. Marshall Hall considered the case to be one of imposition, because the poor man's sound leg did not start or contract while the diseased leg was amputated!!! Admirable physiologist! and provoking chloroform! Dr. George Burrows expressed his doubts of the reality of the case, because of the man saying he fancied he heard something in his sleep. Sir Benjamin Brodie used the argument of the other surgeons, and stated other reasons, which, out of respect for the character of this distinguished operator, we will not now repeat. Mr. Bransby Cooper asked for the *rationale* of the facts: and found a difficulty in admitting them. Mr. Liston wished to know if the interesting patient had been able to read with the back of his neck! Mr. Arnott found some difficulties in the case. All the opponents of mesmerism were, in short, vituperative and incredulous; and all shewed their ignorance of physiology and of facts connected with their own profession.

It is scarcely needful to remind the readers of *The Zoist* of the numerous train of successful surgical operations, during the mesmeric state, which followed Wombell's case; of Dr. Esdaile's gigantic and triumphant proceedings in India; of what took place at Leicester, at Cherbourg in France, at Torquay, at Upwell Isle, at Exeter, and in the United States; and in short, of the extended application of mesmeric insensibility in aid of the surgeon's knife.*

In 1846 and 1847 a marvellous change came over the spirit of the medical profession. The scales fell from their eyes in a most peculiar way. Insensibility to pain was suddenly metamorphosed into a fact, that could be called in question no longer. The merciful discovery burst upon the world, that by the vapour of ether, and by the application of chloroform, surgical operations could be undergone without any suffering, as, it had been alleged, was the case under the mesmeric sleep; and so that controversy was at an end. The statements of the mesmerists were in truth verified to the very letter. And although, in consequence of the rapid action of chloroform upon the human frame, the application

* See the last number of *The Zoist* for an epitome of these operations. See also Sandby's *Mesmerism and its Opponents*, Second Edition, p. 51.

of this agent, in spite of the dangers that attend it, has to a certain degree superseded in practice the employment of mesmerism in regard to surgical operations, still the great historic fact yet remains, that hundreds of painless operations through the agency of mesmerism have been performed in America, the West Indies, the East Indies, France, and Ireland, and Great Britain; and that tumors exceeding a hundred weight have been removed, and that the operations have terminated most successfully. There remains, too, this fact, that whereas in many instances the use of chloroform has proved fatal, and that with patients liable to affections of the heart or of the lungs or of the brain, or whose system has been depressed by long-continued illness, medical men are fearful of recurring to the aid of this anæsthetic, mesmerism has in no single instance been found productive of fatal consequences, and that for surgical operations with those patients for whom the use of chloroform is dreaded, mesmerism is the very agent which a merciful provision of nature offers to our use. The records of the operations in the Indian hospitals prove the accuracy of this assertion; and to Dr. Esdaile's two admirable volumes we appeal in proof.*

Posterity will, one day, ask, what did a high-minded liberal profession say to these facts? What course did they, as a body, or as individuals, pursue? What resolutions did the College of Surgeons adopt? What orations did the College of Physicians hear? What expressions of shame or of regret did the Medical and Chirurgical Society enter upon their minutes? Of what character were the articles which appeared in medical and scientific journals? What said the *Lancet?* What said the *Medical Times?* To what did the editor of the *Quarterly Medical Review* at length give utterance? Did all these parties speak out like men? Did they own that they had been wrong? Did they take mesmerism by the hand, and confess that they had been hasty in their judgments, and unjust in their accusations? Or, alas! for human nature, and philosophical character, did they sneak into a base and secure silence, and in their writings, their orations, their reviews and their lectures, did they, with a cowardice which no language can adequately stigmatize, did they forget what they had uttered, and *suppress the truth?*

Not being a medical man, and not entering into medical society, I am, of course, not qualified to answer all the above

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* If the reader wishes for a literary treat, he is recommended to turn to one of the best papers that Dr. Elliotson ever wrote, *On the art of suddenly restoring the Moral Feelings*, &c., *Zoist*, Vol. V., p. 44.

questions: chance, however, has furnished me with a reply on one point; and it is not impossible that this very point may be as instructive as any, and may even throw a light of no uncertain character upon the other questions connected with this enquiry.

The other day accident put into my hands a recent volume of the *British and Foreign Medical Review*. In that great organ of professional opinion I found two long and most elaborate articles upon *Anæsthesia and Anæsthetic Agents*. The first part was published in No. 17, for January, 1852, and the second in No. 18, for April of the same year. The reader will not unnaturally feel somewhat curious to learn what the reviewer said of the mesmeric painless operations. We will offer, therefore, a brief *resumè* of the contents of these two lengthy articles.

The writer begins with a short reference to former days. "The practice of anæsthesia appears to have existed in very remote times" (p. 159). Dioscorides and Pliny mention that the "root of the mandrake had the power of rendering patients insensible to the pain of surgical operations."—"In the middle ages the vapours of plants were used for the like purpose."—"A king of Poland was rendered insensible during a surgical operation."* The reviewer unfortunately does not inform us whether the Coulsons, Coplands, and Moores of those dark ages ridiculed these facts as preposterous fables, and called for affidavits in their support; or whether the Sir Benjamin Brodie at the Court of Poland made no secret of his opinion, that the royal patient had been *shamming*, and that his pretence of insensibility was a "disgraceful humbug." Perhaps this species of philosophic language is one of the honourable characteristics of modern surgery.

But the reviewer proceeds with his history, and presents us next with a paragraph, which for the falsehood it promulgates,—for the truth which it conceals, and for the slighting tone with which it slurs over important facts that tell against his own statement, is almost unparalleled for its dishonesty. We will give the passage: and the reader shall judge for himself.

"But the art of inducing anæsthesia had *so completely fallen into desuetude*, that the announcement of the application of vapours for this purpose, as recently made from America, deserves the *entire merit of a discovery*. It is true that it was known how compression of the limb may induce insensibility below the part compressed:

* A far better history of anæsthetic agents will be found in the sixth volume of *The Zoist*, p. 42.

and *insensibility to pain during the mesmeric sleep had been much canvassed*" (p. 159).

The reviewer, it will be observed, has the assurance here to assert, that at the time in which the vapour of ether was first employed in surgery, "the *art of inducing anæsthesia had so completely fallen into desuetude*, that the announcement (of insensible operations) deserves the entire merit of a *discovery!!*" Can a more impudent or mendacious statement be well imagined? According to Dr. Johnson, this magniloquent phrase of "desuetude," means "discontinuance of practice or of habit." At the very time, however, that this *discovery* respecting painless operations was made in America, at that time there had taken place very recently, during the mesmeric sleep, *eight amputations*, about *thirty miscellaneous operations*, some of which were rather of a serious character, nearly *two hundred extractions of teeth*, and Dr. Esdaile, in addition, had just published his volume on mesmerism, containing a narrative of what had occurred in India. In that volume he mentions more than seventy anæsthetic operations, of which fourteen consisted in the removal of scrotal tumors, some weighing nearly 80 lbs.; seven were operations for hydrocele, five were toe-nails cut out by the roots; to say nothing of sundry amputations and excisions, and applications of cautery and of muriatic acid. And this state of things the reviewer describes as one, in which anæsthesia had *completely fallen into discontinuance!* And the review, in which this statement makes its appearance, is the great quarterly authority of the medical profession! To make amends, however, for this wholesale concealment of the truth, the reviewer adds, with an exquisite consideration for appearances that is beyond all praise, that "*insensibility to pain during the mesmeric state had been much canvassed.*" These few words contain the only allusion to mesmerism that I can find in these two elaborated articles. Mesmeric insensibility had been much *canvassed!* Verily, the phrase is happily picked and appropriate. As Holofernes, the learned schoolmaster, observes, "the word is well culled, chose: sweet and apt." By it, we are led to infer that the subject had been the occasion of some *discussion;* but that anything had been *done*, or that more than three hundred operations had been the result, is the last thing that the reader would surmise from it. A passage of more flagrant dishonesty, both from the falsehood which it enunciates, and from the facts which it hides, has been seldom compressed into as few words. I do not know who may be the editor of

this quarterly medical journal, yet I cannot but regard the admission of such a paragraph into his review without any explanatory or illustrative comments, as discreditable to his moral character.

Having thus all but ignored the existence of mesmerism, and having completely ignored the existence of Dr. Esdaile's magnificent feats in India, which in themselves constitute an era in surgery, the reviewer proceeds to examine the history of the ether-discovery in America,—refers to Drs. Jackson and Morton, the alleged discoverers,—mentions the application of chloroform,—and describes the introduction and reception of both agents in England. Upon this branch of his exposition I have nothing to observe.

At p. 179 is a long and scientific discussion upon anæsthetic agents in general: a copious list is given, and their comparative merits analyzed: but mesmerism is not even alluded to!

> Oh, word of fear!
> Distasteful to the doctor's ear!

But it is unnecessary to weary the readers of *The Zoist* with a more detailed examination of the review. It is sufficient to say that the writer finishes the second article, "by hoping that anæsthesia will be carried to the furthest extent of which it is susceptible," *i. e.*, we presume, by suppressing the use of mesmerism in those operations in which medical men dare not employ chloroform. "Let us do," exclaims again this model of all benevolence, "what we can to mitigate human suffering;" in other words, let us not permit the name of mesmerism to be mentioned in the presence of any suffering patients for whom all the resources of medicine have been tried and found wanting; but rather let us drive from the sick room and from the wards of the hospital the first presumptuous philanthropist who shall suggest its introduction amongst us. This, we believe, is the present practical commentary at the College of Surgeons, in illustration of "doing all that they can in mitigation of human suffering!"

Hypocritical language like the above is revolting to one's moral sense: and yet, perhaps, we should make allowance for the professional atmosphere in which the writer is forced to dwell, and not expect too high a tone of integrity. The medical mind has within the last few years become so vitiated and debased, that, on certain questions, where the feelings of the College step in, many members of the body often proceed in a course of a most unworthy and disingenuous

nature, and are yet quite unconscious at the time that there is anything out of rule in their conduct. The air which they habitually breathe is so poisoned by misrepresentation, that its *virus* enters into their system imperceptibly, and they know not what they say, or what they do. It is melancholy to watch the shifts and the evasions to which many have often recourse in order to escape from an acquaintance with an unwelcome reality; for to some persons *ignorance, if it be but profitable*, is far more attractive than the richest sources of information. Dugald Stewart, in his life of Dr. Reid (p. 462), speaks of "the half-informed multitude who follow the *medical trade*:" it is a coarse expression; and yet the temper with which numbers, even some in the very highest practice, pursue their calling, smacks far more of the shopkeeper, than of the man of science. I cannot help fearing that this is more the case than it used to be. In early life, I was acquainted with professional men, who, with their high sense of honour, would no more have dreamed of suppressing a truth,—of distorting a fact, or of maligning a brother practitioner, than of purloining a fee or of forging a deed. *Mais nous avons changé:* and certain magnates, who haunt the classic regions of Brook Street and Saville Row, are less nice than were their predecessors; and the infection spreads below. And nothing more marks the *animus* which pervades the literary section of the profession, than the omissions to which I have directed your attention in these two ponderous papers on anæsthesia.

But I have now a curious fact for your consideration. You may remember that, in my letter upon *The Fire-away Style of Philosophy*, I mentioned that upon my once waking up from a mesmeric sleep, I found a MS. in my own handwriting lying on the table by my side, which it was thought that I must have composed in the sleep-waking condition.* Something of a similar kind has again occurred. Upon the evening of the day in which I had been reading the two articles in the *British and Foreign Medical Review*, while my mind was full of the subject, I fell fast asleep near my desk, and upon awakening I found a manuscript lying before me, of which the ink was not yet dry. Whether its contents had been actually written by myself while asleep; or whether a friend had stolen upon me unawares and imitated my handwriting most "abominably;" or whether one of Mrs. Hayden's

* See *Zoist*, Vol. IX., p. 67, for a notice upon Miss Martineau's and Mr. Atkinson's work, *The Laws of Man's Nature*, &c., with a singular parody upon their manner of corresponding.

spirits had stepped in, and "been so kind as to be so good as to oblige me" by his assistance, (for upon waking up I had an indistinct recollection of having heard some strange sounds like a "rapping,") I pretend not to say: at any rate the little document struck me as being so much to the purpose, that I have ventured to copy it for your perusal: and it ought to be added that this heading was placed at the top,—"*Article for the next number of the —— Medical Journal,*" the name being left a blank.

Upon Anæsthesia and Anæsthetic Agents, and upon the blunders and prejudices of Medical Men.

"He has no more knowledge in Hibocrates and Galen,—and he is a knave besides; a cowardly knave, as you would desires to be acquainted withal."—*Merry Wives.*

"It is a sleepy language; and thou speak'st
Out of thy sleep: what is it thou didst say?
This is a strange repose, to be asleep
With eyes wide open: standing, speaking, *writing*,
And yet so fast asleep."

The Tempest.

There was once a time, and that no distant time either, when if any one had ventured to hint at the possibility of a painless surgical operation, he must have been prepared to pass through every species of contumely and ridicule. There was once a time, and that no distant time either, when, if the report of such an alleged marvel had been read before any learned or scientific association, the reporter must have made up his mind beforehand to be hooted down in the first place, and hunted out of the room in the second. The hospitals would have been up in arms against him. The surgeons would have screamed in concert against such nonsense, and expressed themselves as insulted by its communication. Sir Benjamin Brodie, our infallible authority on such topics, would have argued most ably upon the details, and proved their utter impossibility. Mr. Lawrence would have smiled in sarcastic silence. Our virtuous Coulson would have been shocked at such wickedness and imposture. Our humane Bransby Cooper would have shuddered at such delusions. Sneers and scornful gibings would have been the order of the day at each chirurgical re-union; and the unhappy operator, in punishment for his offences, would have been *tabooed* out of every surgical society.

We cannot but remember the feelings of prejudice and incredulity with which almost every member of our profession received the first tidings of a painless operation having taken place during the mesmeric sleep. We cannot look back without something like repentance and remorse, at the attitude which we almost all of us assumed at the first communication of such an event. The evidence, we must now allow, was unimpeachable; the statements clear and technically accurate; the first narrative, too, was re-affirmed and corroborated by many subsequent transactions of a similar nature;

and though the facts were nothing more than those which are now constantly occurring every week within every hospital, we not merely received the intelligence with scepticism and disdain, but we dismissed the high-minded and talented men, who presumed to express their belief in such prodigies, not only with insult, but we erased every record of the proceedings both from our memories and from our minutes.

The discovery of the peculiar manner in which chloroform acts upon the human system, has changed the aspect of the whole question. The facts and the phenomena which the mesmerists related, and which we derided, are now rehearsed every day before our eyes: we see that their statements were accurately correct in the minutest detail; we see that there was neither exaggeration nor mistake in their accounts of those operations; and we ourselves endorse their reports with our own hands.

It strikes us that the time has at length arrived, when it becomes desirable to furnish our younger medical brethren with a circumstantial history of anæsthesia, and with a description of our various anæsthetic agents: and this, therefore, we propose to execute in our present article. But before we enter upon our task, there is one act of justice, which we are eager to perform, and by which we hope to relieve our minds. We feel,—and we speak it publicly and openly without reservation on any point,—that it is due to the mesmeric body, more especially to its leading professional members, to offer them all an authoritative expression of apology and regret, for the manner in which we had all at first received their truthful and now demonstrated communications. No false shame on our part shall keep us any longer silent on this topic. We feel that no language however humble, no posture however respectful, can adequately represent the *amende* which it is our bounden duty to offer for the incredulity and the insults, with which we are shocked at remembering that we received the primary reports of painless surgical operations. In publishing through the pages of our journal this *quasi*-authoritative *amende* to the mesmeric world, we are persuaded that we are but echoing the feelings of the whole profession. The College of Surgeons and the College of Physicians are, we know, impatient to record their deep regret at their unworthy and obtuse behaviour. The President of the latter body, with his face beaming with intellect and spirituality, nods, we well know, approvingly upon our intentions, being always ready to act with justice to an injured party.* Dr. Seymour, whose regard for the comfort of his patients is proverbial, and who doubtless has long regretted the foolish evidence which he gave before a Committee of the House of Commons, will, we are assured, join in our language cordially.† Dr. Francis

* See, *par exemple*, *The Zoist*, Vol. VI., p. 404.

† Among the other luminous remarks offered by our distinguished cotemporary on his examination before the House of Commons' Committee, was this logical opinion, "I consider that in patronizing a mesmeric hospital a person of rank shewed a great disregard to the acquirements of the College of Physicians, to common sense, and to *everything else*." Vol. V., p. 370; Vol. VI., p. 96.

Hawkins, also, who called the mesmerists "*impostors*," must equally, we feel certain, repent his ignorant and inconsiderate language.* Our thundering wiseacre, Dr. John Arthur Wilson, who in another Harveian Oration hoped to extinguish mesmerism for ever, cannot but join cordially with us in retraction of his scurrilous falsehoods.† Dr. Copland, too, feels, we are sure, that he committed himself again by another blunder, when he spoke of mesmerism as one of the impostures of the day.‡ Dr. Alderson, also, must unite most heartily with us in the language of recantation, and be sensible that when he included mesmerism among the "speciosa miracula of empiricism," he was simply doing that of which his friends know that he is often guilty, viz., expressing a grandiloquent opinion upon subjects of which he knows nothing.§ Dr. Henry Holland (we beg his pardon, Sir Henry: for the newly-entitled are tenacious of their fresh honours, especially when there is no very patent motive for them) smirks with assenting smile to all that we have said of misapprehension and precipitancy of conclusion, and blandly admits that in his polite anxiety to please everybody, he has unfortunately pleased nobody whose opinion is worth having.‖ Dr. Ranking, we have strong reason to suspect, wishes with ourselves, that several of his unlucky observations in regard to mesmerism could be erased from his journal.¶ His coarse colleague at Norwich has also, like ourselves, learnt that he has burnt his fingers.** Dr. Fraser, of the

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* "*Præstigiatores, quos vocant, mesmerici*," Harveian Oration for 1848. Is this decent language, Dr. Hawkins, to be applied to men who employed the agency of mesmerism for the prevention of pain in surgical operations? Are they impostors, slanderer? *Zoist*, Vol. VI., pp. 213, 233.

† Don Pomposo referred in his exquisitely classic diction "to the heavenly gift (chloroform) vouchsafed for the relief of man and the prevention of pain." Good Pomposo forgot, in his eagerness to insult "mesmerising bishops and archbishops," that mesmerism was also a heavenly gift vouchsafed for the prevention of pain. See *The Zoist*, Vol. VIII., p. 271, for a most happy castigation of this shallow spouter in Latin.

‡ See Dr. Copland's *Dictionary of Practical Medicine*. When Dr. C. is asked, if Dr. Esdaile's operations in India are proofs of "imposture," he continues to shift the subject of conversation most ingeniously.

§ Dr. Alderson, in a lecture before the London College of Physicians, had the ludicrous impudence to say, that "we may search in vain for one single well-attested practical benefit" derived from mesmerism. Has Dr. Alderson heard of Dr. Esdaile? *Zoist*, Vol. X., pp. 278-9.

‖ See *Zoist*, Vol. X., p. 386, for a successful criticism of Dr. Holland's *Chapters of Mental Physiology*." It is there shown that Dr. Holland suppressed *(ignore*, "the wise it call: suppress! *joh, a fico* for the phrase") all reference to the facts that overturn his hypothesis respecting mesmerism.

¶ Dr. Ranking is co-editor of the *Provincial Medical Journal*, and has somewhat hastily committed himself to a few imprudences about mesmerism. Mr. Walshe, of Worcester, the other editor, *ought to know* better. Dr. Ranking is now a resident at Norwich,—as we understand: why did he shift his quarters?

** Who is the coarse colleague at Norwich? Perhaps, the man "what" performs the zoological phenomenon of "bristling up like a mad bull," every time that he hears of a cure effected by mesmerism. We understand that the Society in the Regent's Park is desirous of importing another specimen of these curious animals for the amusement of visitors. They have a fierce aspect on the first ap-

London Hospital, doubtless deplores his juvenile indiscretion and errors of judgment.* All of us, in short, feel persuaded that we have exposed ourselves to ultimate disgrace by the opposition which we have shewn to mesmerism; and for the hasty way in which we originally denied the possibility of painless surgical operations, we still further admit that every apology and reparation is due that lies within our power.

But the atonement, which we wish to offer, would be incomplete, if we did not add some expressions of regret at the treatment which a distinguished member of our own body has received from too many amongst us. To Dr. Elliotson, we are painfully aware, the most apologetic language is strictly due, more especially as the question of painless operations was not the first subject on which his judgment and his facts were wrongfully disputed by his medical brethren. When the stethoscope was invented, Dr. Elliotson was among the very first physicians who advocated auscultation by its use: but the heads of his profession sneered both at him and at the instrument. Dr. Elliotson, however, *was right;* for now there is scarcely an apothecary of any position who does not carry his stethoscope in his pocket. Again, Dr. Elliotson was the man who established the really good effects of hydrocyanic acid: his opinion, however, was scouted; but he *was right again* here: for this medicine now is an acknowledged item in the pharmacopœia. Again, Dr. Elliotson established the value of quinine: but his opinion was depreciated; however, he *was right again* for a third time; and quinine is habitually recognized as one of our most important remedies. Upon a fourth occasion, Dr. Elliotson asserted the possibility and the propriety of painless surgical operations: however, for the fourth time was he discredited and decried: but for a fourth time *has he been proved right;* for painless surgical operations are now as common, as is the use of the stethoscope, of hydrocyanic acid, and of quinine.† The recollection of these facts ought to make us both humble and ashamed; for they prove, what the friends, who know him best, have always asserted, that Dr. Elliotson is the most cautious, the most accurate, the most safe and certain of observers; and this question, therefore, cannot but present itself to the minds of all of us,—if the correctness of Dr. Elliotson's judgments has been successfully tested upon these occasions, is there not a reasonable pro-

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proach: but a little determination soon tames them, and they shew themselves to be *hart*-stricken. *Zoist*, Vol. X., pp. 84, 92, 410, 412, 414, 425.

* Dr. Fraser is the young physician, who is so exceedingly occupied in his professional duties, that he has only time to read one side of a question. Consequently, he falls innocently into the most egregious blunders, and utters, what would be called with men less busily engaged, unblushing falsehoods. See Tenth Volume of *The Zoist*, p. 72, for most wholesome correction administered to the young delinquent.

† We might add a great deal more about his papers on iron, creosote, glanders, his clinical lectures, his *Human Physiology*, and his *Lectures on the Practice of Medicine*.

bability that he is also correct in his other statements upon the phenomena of mesmerism?

Having thrown out these hints as a warning to the younger members of the profession, we will now proceed ———

Here the manuscript unfortunately ended: but, whatever may be the source from which it proceeded, it contains so many just and pertinent observations, that I have been tempted to forward it to you. And let me add, moreover, that it is at the service of the editor of any medical review, who is in need of a good opening upon the subject of anæsthetic operations. The different facts, however, that have been thus brought forward, prove the truth of what Sir W. Hamilton has stated in one of the mottoes of this letter, that the "history of medicine is the history of variations," and that these "successive variations have, by medical bodies, been first furiously denounced and then bigotedly adopted." And is not this fact a lesson for the adversaries of mesmerism?

I remain, your humble servant,

ANTI-GLORIOSO.

III. *Instances of the power of Mesmerism over Neuralgia, Diarrhœa, Constipation, Sick head-ache, Chronic Inflammation of the Eyes, and Debility of the young Female Constitution.* By WILLIAM LLOYD, of the Society of Friends, Fulford, Yorkshire.

"It was during Mr. Clark's attendance at the University Hospital that Dr. Elliotson first introduced the mesmeric experiments. Mr. Clark was a *firm opponent of these* ABSURDITIES *from the first*: and formed one of the Committee which exposed the OKEY FRAUD at Mr. Wakley's house in 1837."—*Medical Circular and General Medical Advertiser*. London, April 20, 1853. Memoirs of J. F. Clark, surgeon.*

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* The *Medical Circular* is a weekly medical pamphlet, edited by a surgeon in Farringdon Street. It gives memoirs of living medical men, who supply all the interesting details of themselves; and Mr. Clark, there can be no doubt, wrote the above glorious particulars of his noble self. As so many Clarks are doctors, and we are anxious that the immortality conferred by such sagacity and intrepidity as Mr. Clark has manifested for sixteen years should be bestowed upon the real little personage, we consider it incumbent upon us to inform the world that this gentleman practises the various branches of the healing art at No. 23, Gerrard Street, Soho, left-hand side from Princes Street: and that he has for nearly twenty years gained no inconsiderable proportion of his livelihood by being Mr. Wakley's most obedient reporter of cases at the different hospitals, forming his medical thoughts and habits upon the model of his great master and patron, who could put him into a side pocket and bite off the dear little *Rufus's* head at one munch if he were naughty enough to say, what his intimate friends say for him, that he really believes in the truth of mesmerism though he dares not let this transpire.—*Zoist*.

Fulford, 5th month 4th, 1853.

RESPECTED Friend, Dr. Elliotson.—If the following cases, in the absence of more important matter, should be deemed suitable for insertion in the philanthropic pages of *The Zoist*, thou will oblige me by forwarding them for that purpose.

I am, with sincere esteem, thy Friend,

WILLIAM LLOYD.

Neuralgia.

Sarah Owens, aged about 20, Walmgate, York, had been for two years subject to occasional attacks of extreme pain on one side of her head and face; to such a degree that she said it sometimes almost deprived her of her senses. I accidentally became acquainted with it, as I one day called at her mother's where she happened to be staying at the time. She had then been suffering with it *three months*. I offered to make her a few local passes, which she accepted, and which had the desired effect. Upon occasional inquiries afterwards, I found it had entirely left her; and upon my calling on her a few weeks ago, when more than *twelve months* had elapsed, she told me that she had had *no return* of it ever since.

Diarrhœa.

As I one day stood by the board of Thomas Bulmer, tailor, Fulford, he said to me, "I'm almost purged to death." I queried, "why should I not relieve thee of thy malady? I'll try if thou like." He said he had no objection, so I brought him near the fire, and made mesmeric movements before him for about *twenty minutes*, from which time he had *no further trace* of the diarrhœa, and his bowels became perfectly regular.

Inveterate Constipation.

Thomas Dale, an old man and paralytic, was troubled with *inveterate* constipation, insomuch that no movement of the bowels could be obtained, but by the adminstration of castor oil; but, by the occasional application of local passes, the *castor oil was entirely laid aside*. But after a few months he had another paralytic fit, from which he did not recover.

Sick Head-ache.

Mrs. Jones, Fulford, had been subject for about *twelve months* to *very severe* attacks of sick head-ache, as often as three times a week. I mesmerised her four times, when she was so far cured as that she had but one fit of it during the four months she subsequently remained at Fulford.

Inflammation of the Eyes.

The eyes of a neighbour of mine, an artist, had been in a state of inflammation for *six weeks*, during which time he had been under medical advice, but still the malady was extreme; and he was greatly discouraged. I offered to mesmerise him; he accepted the offer, and in *four days* his eyes were well, and have continued so ever since, a period of nearly *a year and a half.*

Inflammation of the Eyes.

Another neighbour had a female friend with her two little children visiting her. The eldest child, a little girl 6 years of age, had weakness of the eyes, insomuch that she could not face the light, or bear to look up. She had been prescribed for by a surgeon of good practice in York, and for three weeks subjected to a course of medicine and ointment, but without its producing any amendment. I first mesmerised her on an evening, but, from the great restlessness of the child, I anticipated no beneficial result from this first attempt. Yet the *next morning* her mother was so surprised at the degree of improvement, that she wished a continuation of the treatment; this was adopted for a week, when it was *no longer requisite.*

N.B. There was no mesmeric sleep produced in any of the foregoing cases, except in Mrs Jones, and that but very slight.

Debility of the young Female Constitution.

A. L., aged 18, daughter of J. L., York, had been in a languishing condition for *six months*, suffering strong palpitations of the heart, severe pain in the chest, loss of appetite, depression of spirits, and restless nights. I mesmerised her for about seven weeks, every day for about half the time, and every other the remainder; from which period, now *over four years*, she has been comparatively robust, and equal to the performance of all the duties of life; a considerable portion of her time she is engaged in a retail shop, from seven in the morning till nine in the evening. In addition to the beforementioned maladies, she had an enlargement of the neck, that was much reduced under the treatment, and has since nearly disappeared.

To Contributors.

My dear Friends and Brethren,—For I feel in fraternity with all who like myself are conscientiously engaged in the promotion of mesmerism. Allow me *very respectfully* to intreat you, as far as circumstances will allow, to be diligent

in imparting the genial influence to such of the afflicted as may come under your notice; this done in all our various localities, and we may confidently hope that mesmerism will prevail and become popular. Permit me also to suggest the necessity of sending cases for insertion in *The Zoist*; for, until the principle becomes more universally resorted to, its pages should increasingly teem with the achievements of mesmerism. It also appears to me very desirable that we should watch opportunity for reporting cures in diseases, not hitherto recognized as curable, by mesmerism. I possess five volumes of *The Zoist*, VI. to X. inclusive, but in none of the indexes do I find a cure of diarrhœa reported; and if any of my friends can report a cure of either diabetes or piles, they will oblige me and serve the cause by so doing.

I am, very respectfully, your Friend,

WILLIAM LLOYD.

Fulford, near York, 5th month 5th, 1853.

IV. *Mesmeric Notes and Cases. Cure of Ear-ache: general Debility and Hypochondriasis: and Tooth-ache.* By R. E. CANE, Trinity College, Dublin.

"The Abbé Nisseno says, P. 1, l. 3, cap. 5: "Tobacco appears to have been brought from the Indies to Spain and other countries of the old world by the anxiety of the devil." "Tabaca demonis sollicitudine ex Indiis in Hispanias aliasque mundi superioris oras invecta videtur."—*La Physique Occulte.* Paris, 1752. p. 326.

ALTHOUGH the knowledge of mesmeric phenomena has of late years become to a great extent lucid and systematized, still there are many parts of it, especially those touching on the relation existing between operator and subject, that are yet very indistinct, and which we can only hope to explain by collecting and comparing the observations of individual operators. I do not see that we have as yet advanced much towards even the principal question of this art: why particular magnetizers produce better marked effects with particular subjects than others? And any probable attempt to elucidate it must depend on the facts observed by mesmerists in general, as to the temperament, size of head, of body, &c., as existing in themselves and their patients. It is generally understood that a large, active head, will, *cæteris paribus*, influence a small inert one; but we can scarcely call the rule general, and the exceptions are perfectly unexplained. Temperament is an important condition; I have myself *generally* succeeded best with those of sanguine-lymphatic or sanguine tempera-

ment, my own being principally fibro-nervous, but unfortunately sufficient time is not at my disposal to permit of such extensive experiments as would render deductions from them worthy of consideration. I can only throw out the general suggestion, that when operator and subject have little of the same temperament in common, perhaps, *cæteris paribus*, most effect is produced. The mental disposition of both parties, also, when most effect is produced, is worth examination. Large Adhesiveness in the subject, I have always found a material assistance; other relations of the kind I have been speaking of, which I have not sufficient facts even to touch on, are those under which clairvoyance, prevision, &c., are produced and the qualities which are essential to the production of medico-mesmeric effects, &c. These are all very striking phenomena, and ones which it is important should be accurately understood; in our wonder at the things themselves, we have hitherto neglected the very arduous task of inquiring into the conditions of their occurrence; but it is to be hoped that the pages of *The Zoist* will bear speedy evidence of careful and accurate observations with this view.

Ear-ache.

The first article in your April number is very gratifying; more especially as it shows the attention paid to, and progress made in, the practice of mesmerism as a remedial agent—by far its most important phase. I find a few slight instances of this nature in my case book that may be interesting.

1. A country woman was brought to me, suffering excruciating pain in the ear. Her account was that a shell of barley had got into it, while she was engaged in reaping; but on examination I could find no such thing in it. It was extensively swelled and torn inside, however, from the efforts of her neighbours to extract the imaginary barley with a long pin. She was "roaring with pain." I told her to sit quiet, and made downward passes with one hand over the affected ear, without giving her any notification of what I was doing, or what effect I expected. Occasionally I made full soothing passes on the head and shoulders. In a few minutes she said she was "getting weak," and that the pain in her ear was converted into an itching; and in about a quarter of an hour she complained no more, and lay back in the chair half asleep. She continued without pain for about half an hour longer, when I dismissed her with directions to come back if the pain returned. I have heard no more of her since. It was evident she had no *idea whatever* of mesmerism; the effect was produced entirely independent of herself. Her countenance and

personnel were evidence sufficient against her relief being the effect of "imagination."

General Debility and Hypochondriasis.

2. A married woman, the mother of a family, had been under the care of several of the principal medical men in Kilkenny for lowness of spirits, loss of appetite, and general debility, at intervals, during many years. To use her own expression she "*had swallowed a ton of medicine, and she was no better of it.*" She was at last recommended by Mr. Hogan who introduced her to me, to try the effect of mesmerism. She had a peculiar cast of countenance I have often seen in epileptic and chlorotic patients; and was in a pitiable state of nervousness. On one of the first trials, the shaking of a bell wire which passed through the room I was operating in, put her into an agony of terror; and for a long time she was "afraid" of the fixed gaze to look toward me while I was attempting to influence her. I commenced to mesmerise her daily, for a quarter or half an hour each time, (she could not bear longer, such was her debility) and gradually she became less nervous, and "more light hearted" as she expressed it; her strength and appetite increased; and her frame grew stronger. She also became free from "frightful dreams," which used to annoy her greatly. *After about twenty-four operations* she stated that she would never ask to be better than she was, and *all her old symptoms had disappeared.* I directed her to come to me about every two or three days, but after a while she omitted coming, possibly through "Satanic" agency. *I never succeeded in inducing sleep in this case;* nor any effect beyond a strong drowsiness; pointing at the eyes had the most powerful effect. I also used mesmerised water; the first dose of which, she complained, made her feel very uneasy, as if "she didn't know whether she was sick or well; I had not led her to expect any effect from it. After the first time it produced no further uneasiness. Also, on particular occasions, when she complained of more debility or low spiritedness than ordinary, I used passes along the spine; and attempted excitations of the organs of Hope and Mirthfulness. In this case the temperament appeared to be lymphatic-fibrous.

Tooth-ache.

3. M. J. P., a rather susceptible subject, asked me in July of last year to make a few passes for a severe swelled jaw and tooth-ache. After a *few moments he said the great "anguish" was gone; and shortly he complained no more,*

though no effect was perceptible on the swelling. The tooth has not been spontaneously painful since; I mean, it has given no annoyance but when pieces of bread, &c., get into it. He attributes this entirely to my interference.

In these three exertions of magnetic influence at least, my obtuseness cannot detect anything savouring in the slightest of the "Satanic;" or if there be, Satanic agency is a power we ought to feel very grateful to, and Satan quite a respectable individual, after all.

In connection with Mr. Ekins's and other gentlemen's observations on mesmerised water, I may state an experiment performed on a little brother of mine with it. I was trying to render him clairvoyant, or rather to see if I could produce any such effect; and to this end I directed him to gaze in a glass of the water, having suggested to him a person to think of. After a while he saw light in the water, and commenced to describe insects, ships, trees, figures, &c., but altogether unconnectedly. He was gazing fixedly into the water, and evidently under a sort of impression that what he saw was real. When those effects had gone on for some time, I blindfolded him, and removed the glass, but the induced (dreaming?) state continued, and he was still describing cows, &c. I then commenced making passes over his face, outside the cloth, when he suddenly cried out, "Oh! I see a great deal of lightning coming every way;" but this effect did not last. In this case the effects, except perhaps the last, were evidently due to a strong imagination, or possibly what we call submesmerism; we should be careful to distinguish such from the true effects of mesmerised water, which, unless in the case of some clairvoyants, does not seem to influence the special senses by its own virtue at all. The only facts relative to it that I am inclined to accept as fully and definitely proved yet, are its internal curative effects.

Mr. Cottrell's case of clairvoyant dreaming is very curious. There is some reason for thinking such cases are not so uncommon as is generally supposed; and it is probable that in all or most of them, the subject could be brought into the more constant clairvoyant state by mesmeric operations.* The following case of this sleeping clairvoyance was

* In No. XLI., p. 80, &c., see Dr. Elliotson's observations upon clairvoyant dreaming, with abundant references, at the end of Mr. Cottrell's case.

related to me by J. P., who afterwards became to some extent mesmerically clairvoyant in my hands. When a child, he lost a small pocket-pistol, which formed a constant companion of his, and felt its loss deeply. Unavailing search was made, but at last he dreamed it was in an old clothes-trunk, in a servant's room; where accordingly it was found next day, to his great delight. I may hereafter give a detailed account of one of his mesmeric clairvoyances; the object of the present instance is to shew the concurrence of lucidity in the artificial and induced sleep in the same person. Such a concurrence, if constant, would be of material aid to mesmerists seeking subjects exhibiting clairvoyant phenomena. Some mesmeric dreams, to which we are not justified in attributing the term *clairvoyant*, closely resemble this class of phenomena. They are occasionally so clear and distinct that one might be tempted to think them instances of such prevision or retrovision as those given in the latter part of Dr. Gregory's *Letters*, but that we cannot see any circumstances to which they refer. M. J. P. on one occasion while I was attempting to induce the magnetic sleep, fell into a state of this kind. He breathed heavily, and appeared asleep, but assured me he was not; and began to describe with great minuteness, as if he was at that time looking at it, a sort of wooden framework extending along one end of the room, and the dead body of a female dressed in black, with long black hair, thrown carelessly across it. This vision made a considerable impression on him; he has since frequently referred to it in conversation. It exceeded in intensity and *vraisemblance* any of those dreams I have met with; but, for the present at least, we must consider it a mere dream.

In some cases it is difficult to explain why sleep is not produced after varied trials, although from the commencement the patient has been very strongly affected in other ways. Many of the mesmeric books give instances of this kind; the best I have seen was in the case of J. o'R. On the second trial he spoke of feeling "as if he was in heaven,"

He considers that clairvoyance is more common in sleep than in the waking state: and gives from Archbishop Potter's *Archæologia Græca* the observations made by the Greeks upon the subject, and perfectly harmonizing with our own. Mr. W. W. Lloyd, in the last of his learned articles (Nos. X., XI., XIX.), quotes a passage in the *Eumenides* of Æschylus. The shade of Clytemnestra upbraids the Furies with sleeping instead of avenging her:—"View my wounds with thy heart, for the *sleeping* mind even of mortals is brightened with eyes (is *clairvoyant*), while by daylight it has no foresight of fate."

Εὕδουσα γὰρ φρὴν ὄμμασιν λαμπρύνεται·
ἐν ἡμέρᾳ δὲ μοῖρ' ἀπρόσκοπος βροτῶν.—104. 5.

—*Zoist.*

and saw a great deal of sparkling light about him; he felt a "dry heat" from my hands, and was unable to endure the light of the candle. But after several trials the effect did not increase; indeed, if it at all changed, it was lessened, and I had to discontinue. At the same time the process had one good effect; J. o'R. stated that his spirits had been livelier and better since I commenced operating. An incident occurred on one of these occasions which goes somewhat to prove that the "dry heat" he felt was proportioned to the magnetic effect produced. I began to mesmerise him one evening, when I was much heated and rather fatigued. As might be expected, very little effect was produced this time; and when I had finished, a bystander, Mr. H., said, "I did'nt expect you to do much to-night; you were too hot." "Hot!" said J. o'R., "I felt you much colder than usual."

I believe *The Zoist* may fairly congratulate itself on having "put down" "ELECTRO-BIOLOGY;"* I congratulate myself on having dealt a blow, however feeble, in the battle against it. "Spiritual-rappings" is the next humbug to be quashed: and, after your article,† and that in Dickens's *Household Words*, I do not think it can survive long. I had, since my last communication to Dr. Elliotson,‡ another case of "electro-biological" results brought about where mesmerical ones were expected; and where I am perfectly certain I could have produced the same effects without any preparation, mental or otherwise, merely by the influence of a very positive and energetic manner over a mind of weak character and calibre.

With this I shall conclude a rather desultory record, which, I hope, has not trespassed too far on the time and space of *The Zoist*.

R. E. CANE.

V. *On a preservative and curative treatment of Asiatic Cholera with Metals: followed by an account of a particular system of application of Metals, intended to popularize the new properties discovered in them by means of Magnetism.* By Dr. BURQ, of Paris. Translated by Dr. Elliotson.

ONE day in April, 1852, I had to visit an important copper foundry in Paris, at No. 22 in the Rue Gravilliers, and learnt accidentally in conversation that all the workmen and inmates

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* Nos. XXXIII., XXXVI.—*Zoist.* † No. XLI.—*Zoist.*
‡ No. XXXVIII.—*Zoist.*

of the establishment have escaped the cholera both in 1832 and 1849. I began to wonder whether metals had other properties besides those which I ascribed to them in 1849 in consequence of my experiments with metallic armatures upon cholera patients.* However, I was beginning to forget these, when, a month later, the same observations presented themselves to me again with a sort of tenacity, and particularly in three other copper foundries, at No. 20, 46, and 35 in the same street, where 400 or 500 workmen and inmates had escaped equally with those at No. 22.

This novel and remarkable immunity being far from ascribable to the healthiness of the quarters, or even to the state of the houses, all four of which looked as miserable externally as foundries in general, to the mode of living of the inhabitants, or to the rate of mortality of the adjoining houses, I could not consider it accidental, and did not rest till I rendered at least very probable the remarkable properties which I at first had only suspected in copper.

In order to arrive at this important result, I devoted myself to an extensive investigation, of which the following are the principal results.

I. I visited in Paris alone nearly 400 houses,—all kinds of factories of metals, from the humble workshop containing from 4 to 10 workmen only to the large establishments in which, as in that of Messrs. Pail and Pavé, there are hundreds; from the factories of castors in the *Faubourg St. Antoine* to the forges of *Grenelles*, and from the iron foundries of the *Faubourg St. Marteau* and *St. Jaques*, the type foundries in the *Rue de Vaugirard*, and the factories of Messrs. Payonse, Calla, Gonin, and Farcoux, at *La Villette*, *La Chapelle*, and at *St. Ouen*.

I put myself in communication with the presidents, treasurers, or secretaries of workmen's associations, with the heads of journeymen locksmiths, shoeing smiths, boiler makers, &c., and very frequently visited the workmen themselves at their public houses or lodgings.

At the same time I wrote to the departments, to the proprietors, managers and medical attendants of our chief factories, foundries, flattening and wire-drawing mills, to the mayors and magistrates of the towns, where, as at *l'Aigle* and *Villedieu*, the population is nearly all employed in metals, requesting information upon the course of the two epidemics in their localities. I applied also to the Swedish and Russian

* See Dr. Burq's two former articles on the metal-cure in Nos. XXXVIII., XXXIX.—*Zoist.*

ambassadors, Professor Huss of Stockholm, and the Count of Montferraud, architect of the Emperor at St. Petersburg and director of the mines of copper and malachite belonging to his highness Prince Anatole de Demidoff in Siberia, to the larger metallurgic establishments of Europe, the cutlery factories of Sheffield, the iron works of Wales, the boiler factories of Birmingham, &c.; and, after many months of such inquiries, after having searched the valuable statistical documents published by the Cholera Commission in 1832, I have felt justified in announcing my discovery to the principal academies and learned societies of Europe, in the form of certain propositions or conclusions, which I will detail after having communicated the most important facts of this extensive examination.

Different factories in copper, bronze, and brass.

PARIS.

1. *Factories of surgical instruments.* 600 workmen; 3 only died in the two epidemics. In 1832, M. Sax, who was not at that time established in Paris, noticed the same immunity among the numerous workmen of Brussels.

2. *Copper turners* for opticians. From 300 to 400 workmen; 2 died in the two epidemics.

3. *Makers of castors* in the *Faubourg St. Antoine.* 200 workmen or masters; 3 died in the two epidemics.

4. *Bronze manufactory.* From 7000 to 8000 workmen; 15 at the utmost died in the last epidemic. I could learn nothing respecting the first.

M. Eck, president of a society called *Du bon Accord,* consisting exclusively of workmen, chasers, gold setters, and *turners in bronze,* declares that among 300 members one only died in the two epidemics.

5. *Engravers, working jewellers, makers of medals, of buttons, copper turners, makers of tubes, of lamps, of penholders, copper polishers, &c.* Mortality very inconsiderable in every workshop which I could visit,—scarcely 5 in 1000.

The different passages opening into the *Rue de Gravilliers* —the *Passage de Rome,* the *Impasse de la Marmite,* the *Passage Barron,* &c., which are full of factories, experienced in the two epidemics a comparatively insignificant mortality, especially if we consider the mode of living among the inhabitants; scarcely 5 in 1000.

6. *Copper foundries.* 50 establishments scattered through Paris. 1200 or 1300 workmen; imperfect information respecting 1832: but in 1849 only eight died, among whom was 1 drunkard, excessively addicted to brandy, 1 apprentice, 2

persons previously out of health, and 1 seized on a sudden away from the foundry. This very remarkable fact was too common wherever I could ascertain the particulars of every workman, not to be highly significant.

7. *Boiler makers.* 500 or 600 workmen or masters; 3 or 4 only died in 1849. The mortality equally slight in 1832: but there was no precise information. Many persons in this occupation informed me positively, or nearly so, that I should not find cholera patients in the boiler factories, because *copper kills the cholera.*

The great copper establishment (to distinguish it from the iron manufactory at Chaillot) belonging to M. Cail and Co. at Grenoble, had 600 workmen of all kinds in 1849: 2 died, one having been the worst kind of drunkard, and the other having just been committing debauches at Paris; and yet, in the last epidemic especially, the cholera committed great ravages at Grenoble, and raged so particularly in the houses around M. Cail's manufactory, that the inhabitants were decimated and obliged to quit the neighbourhood, though many, and among the rest a cluster of 5 houses on the bank of the Seine, were apparently in the most favourable circumstances. What is more, M. Poli's forge, situated at least 300 metres distant from M. Cail's boiler manufactory, lost 6 workmen out of 70.

Departments.

Copper foundries, file makers, &c.

1. At St. Denis, M. David. 100 workmen; 1 died.

2. At Essonne, M. Reveilhac. 70 workmen; none died.

3. At Romilly, a joint stock company, 500 workmen, 2 died and they were drunkards.

4. At l'Aigle, M. Monchel. 600 workmen distributed in 3 great establishments; none died. The cholera never found its way into l'Aigle in 1832, but in 1849 it prevailed there.

5. At Givet, MM. Estivan Brothers. 400 workmen; none died.

6. Imphy (Lièvre). 800 workmen in 1832; none died. The same establishment removed to Havre in 1849; none died. It was very remarkable that in 1832 there were also at Imphy flattening and wire-drawing iron mills, which, united with the flattening copper mills, employed from 300 to 400 men; and no one died. In 1849, they worked at iron only, and the workmen were fewer; 4 died. And a similar and equally important fact is, that at No. 109, *Rue de Bac,* in 1832, in the extensive lead foundry, 18 died both among

workmen and inhabitants. In 1849, when a small copper foundry had been added to the lead foundry, 2 only died.

At *Ville Dieu*, in the department of *La Manche*, where much copper is manufactured, the cholera never appeared.

FOREIGN COUNTRIES.

At Birmingham, where all the copper boilers of England are manufactured, and in those parts of Wales where, as at Swansea, the copper of Australia, Sweden, and Russia is refined, the number of victims was very small.

Mines.

Near Pontoise is a small village upon a hill which has so completely escaped both epidemics that it became a place of refuge for the inhabitants of the neighbourhood. The hill is said to contain copper.

At Phalen and at Sinakœping, where are the richest copper mines in Sweden, there never has been either the plague or the cholera, although the latter occasionally raged in the neighbourhood; and, what is remarkable, there exists a prevalent belief in these two parts, "that the cholera miasma and copper are incompatible." I owe this information to Professor Huss, and his account is fully confirmed to me by the Swedish ambassador, his excellency the Count of Posenheim.

In Siberia, on the estate of his highness the Prince Anatole of Demidoff, 4,600 persons worked both in the copper, malachite, gold, and platina mines, and above ground. In 1849, the cholera found its way thither, and only 9 men died among the workmen engaged in extracting the copper.

But, if we suppose copper to possess the wonderfully preventive and curative property of which all these facts leave no doubt, the originality of this happy discovery will not belong to me; because the accredited organ of a different school from my own has recently expressed itself in the following terms with reference to my communication made to the Academy upon the prevention and treatment of cholera with this metal.

"Copper, in addition to a curative, would seem to possess a preservative, property, according to the researches of Dr. Burq. This is a fact which homœopathy foresaw, and which practice has verified.

"The employment of copper," says Hahnemann, "united to a mild and regular regimen and proper cleanliness, is the most efficacious and certain preventative, if a dose is taken every week in the morning on an empty stomach." Hahnemann even adds (and this is a remarkable instance of empiricism and popular good sense frequently forestalling scien-

tific discovery): "It has also been observed in Hungary that wearing a plate of copper next the skin was a preservative against the infection: this I have have been assured of by several good authorities in that country."—*Journal of the French Homœopathic Society*, January, 1853: Dr. Escallier.

If, as cannot be doubted, the statement of this gentleman is correct, it ought not to vex, but to please me: for in that case all the trouble I have taken has the less chance of being useless.

Different factories of iron, steel, zinc, and mercury.

Copper does not seem to be the only metal which proved a preservative against the cholera: but other metals, high in the scale of electric conductibility, such as iron, steel, and mercury, appear to have protected many workmen who were not aware of the circumstance. But, as these metals possess a mediate or neighbouring influence only upon the cholera, the immunity will not be perfect unless the protecting agent is in great activity and in sufficient mass; nor unless no particular circumstances neutralize the effects of its presence. At Paris, the great establishments of MM. Cail at Chaillot, and Cuvé in the Faubourg St. Denis, each of which employs from 500 to 600 workmen; that of M. ————, near Parmentier, which employs 150; M. Decorser's building factory in the *Rue Stanislar*, 70; that of M. Calla at La Chapelle, 200; that of M. Gonin at Batignolles, 300; and, lastly, the establishment of M. Farcoux at St. Ouen, 200; did not lose 10 in the whole during the two epidemics. The houses of MM. Charrière and Euër, and in general all the manufactories of surgical instruments, lost only 2 in 1832 and 1849. Steel polishers, and makers of files and steel springs, makers of steel helmets and cuirasses, lost about 5 or 6 in a 1000. Iron foundries, which have less connection with this metal than the preceding occupations, and which at Paris employ about 1000 men distributed in from 25 to 30 houses, lost 10 or 12 in the last epidemic.*

Locksmiths and especially shoeing smiths, who are surrounded with but small quantities of iron, suffered a good deal. The same held good among the cutlers in the depart-

* A very interesting fact, generally observed among steel temperers, is that, in the two epidemics, it was seldom possible to make good springs. In 1849, M. G., a skilful mechanician, at Menilmontant, Paris, to whom more especially I owe this information, tried all means in vain to overcome the new enemies of this manufacture. The springs continued to break till the violence of the epidemic was passed. He has afterwards never failed but by accident, and is now at the head of this business.

ments, who, as at Bresles and Nogent, were isolated, and had only some tools and very little iron or steel in their neighbourhood.

On the contrary, in the great establishments in the departments la Creuzot at Decazeville, the forges of la Providence, of Commentry, and of Val D'Osne, &c., &c., where there are great quantities of metal, the immunity was complete in proportion as the establishment was situated more at the mines themselves.

I must mention one exception at the forges of Montalairé. This establishment, placed in a very unfavourable sanitary condition through the proximity of several marshes, and which besides derives all its ore from la Champagne, suffered so considerably in 1849 that it was obliged to close its doors.

The zinc mines of Stolberg and of the ancient Montagne were spared.

It was the same with various quicksilver mines: and, on account of the immunity in them, Dr. Jules Suérin, of the *Gazette Médicale*, proposed to treat the disease with mercurial frictions: and the practice prevailed in Germany during the last epidemic of carrying about with one a tube filled with mercury as a means of prevention.

Should all these facts fail to convince, before we have those furnished by the zeal or interest of all concerned in such occupations, magistrates, medical men, &c., to whom I am at present applying to attain my object, I can only say that the Cholera Commission of 1832 has already unconsciously nearly gained me the victory,

1. By shewing in its valuable statistic collections that the occupation most spared was that of hardwares.

2. In assigning a small mortality to the *Rue de Rappe, Faubourg St. Antoine*, a street inhabited by people very careless in its habits and in all things conducive to health: and to all the quarters of St. Martin's in the Fields, which is miserably full of little streets, courts, and alleys of all kinds, but which, on the other hand, is full of copper and steel factories: whereas the rate of mortality was frightful in St. Giles, which is only separated from it by St. Martin's Lane, and in which, instead of metal factories are the shops of mercers, milliners, druggists, &c.

During the two epidemics in France, in 1832 and 1849, the metals, wherever I could collect observation, exerted in general an influence as beneficial, as it was conspicuous, in all occupations much concerned with metals.

II. This influence, so evident that I am astonished it has attracted little notice and led to no results, is especially re-

markable among the workers in bronze and brass, and, in a lower degree, among the workers in steel: but, as we descend in the scale of trades, the top of which scale would be occupied on the one hand by the alloys of copper, and on the other by the carburets of iron, and the bottom by these two metals in their greatest purity, the cholera mortality increases till at length it attains perhaps the mean; and, in the case of copper, is very great, though without reaching its limits.

Thus in 1849 a thousand workers in steel lost scarcely 3 or 4 from cholera: whereas, for instance, the journeymen shoeing-smiths, amounting to 200 or 250, lost 5: and, though all the musical-instrument makers, amounting to 600, lost but 2 in 1832 and 1849, the boiler factories of Paris, which employ about the same number of hands, lost 4 or 5 in the last epidemic only.

3. The protection afforded by the metals appear to have been of two distinct kinds:—*preventive* and *curative*.

Preventive, without doubt, directly by contact with the metal, and in proportion to the quantity of the metal; and indirectly by mere proximity, like persons placed within the sphere of a protecting thunder rod: at least this is the only way of explaining the great exemption from the disease in almost all the inhabitants of copper foundries, unless it is ascribed to the dispersion of the metals in the form of very minute particles or particular effluvia during the melting and the working of the metal.

4. I think that the preservative power is possessed on the same ground by all metals which are at the same point of the electric scale: and, if it exists especially in brass and steel, this is probably because these two metals, endowed with strong electric and magnetic properties, successfully modify similar perturbations, in the midst of which only the cholera miasma is able to commit its ravages. It is very remarkable, in the latter point of view, that I have never met with the same amount of protection in occupations, similar in the nature of the metals, but, like watch-making, differing in this that the metals were most carefully greased or oiled.

III. The *curative* power, on the contrary, appears possessed by *copper only*, which is, to the miasma of cholera, what sulphate of quinine is to the miasma of intermittent fever. Many times have I noticed this remarkable property most decidedly, and a particular workman or master of a copper foundry has been exempted from the worst symptoms of cholera by continuing to reside in the midst of copper dust and emanations, whereas another, less fortunate, has perished by quickly leaving the factory.

The preventive and curative properties of copper are so great that the whole of a type-foundry, in which, however, copper is not greatly used, lost but 2 men in 1832 and 1849: and in 1849 the occupation which, doubtless, from its known intemperance and unhealthiness of habits, was thought likely to suffer the most,—the copper foundry at Paris,—lost but 8 persons out of 1500, and among them was an inveterate drunkard, drinking brandy excessively at the very time, an apprentice, and two individuals who were already ill, and one of whom was seized on a Sunday when out of the foundry.

Ultimate conclusion.—The alloys of copper, brass, and bronze, carburets of iron, termed in commerce *German* and *English* steel, applied extensively and constantly to the skin are a valuable means of *prevention* that ought not to be neglected during the prevalence of cholera: for their application is attended by no inconvenience, and, if the relative preservative power which I think they possess is not perfect, we might possibly increase it by pinches of very finely powdered brass or steel snuffed up the nostrils; and, as a last precaution, by large plates of brass or steel that people well off might conceal in their rooms.

2. In the treatment of cholera, copper, given at a suitable time, either alone, or united with agents which, like opium, have received the sanction of experience, either in filings, or in any other form, the proper dose of which, as well as its best mode of administration, practice will soon point out, has *the best chance* of becoming in the hands of skilful physicians *a powerful means of cure.*

All persons may be classed, according to their metallic susceptibilities, in a scale of 100 divisions, with copper at one end and iron at the other. These two extremities are like two opposite poles and cannot be confounded: and he who is sensible to iron or steel is insensible to copper, and *vice versâ;* though we are unable to explain the difference why anæsthesia, for instance, which vanishes in one person under the influence of the first metal, ceases in another on the application of steel, and why one chlorotic patient is readily cured by iron taken internally, while another is unaffected by its various preparations or is even disturbed by them.* From

* I never saw a case of chlorosis which was not cured by the continued and properly adjusted administration of iron. It may disagree if overdosed or otherwise badly administered, like every other medicine: and, when it disagrees

30 to 35 divisions of the scale seem to me to belong to iron and its compounds (the different kinds of steel): a nearly equal number belongs to copper and its alloys: and the rest, viz., the 30 or 35 divisions of the centre of the scale will scarcely be occupied by the other metals—gold, silver, platinum, &c.

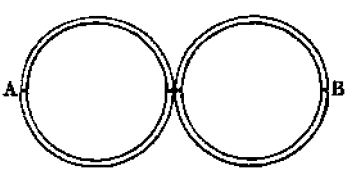
I have proved the truth of these proportions by shewing in the numerous cures which I published in *The Zoist* that steel and copper had effected nearly all the cures.

My plan of treatment, therefore, consists in employing almost equally all the four metals—copper,* brass, English steel, and German steel (which all act in about three-fourths of the cases), in the fabrication of a series of apparatuses of utility, religion, or pleasure, that are generally in common use; such as finger rings, necklaces, girdles, bracelets, medals, rings of all kinds, plates, and chains; busks for stays, Indian strigils, and rods for friction and kneading; bathing vessels, poultices, &c., for the purpose of dry or wet application to one part of the body when desired, without, however, changing the habits of the patient.

The form of all these articles is quite indifferent, and they may be indistinguishable in appearance from those already in use; but their construction should be such as to allow of their exact and convenient application to the respective parts of the body for which they are required; so as to present a surface in direct relation with the degree of the effects desired; and especially in all cases in which the nature of the apparatus or article allows it, or where there is an advantage in doing it, such as to afford the possibility of applying, at pleasure, the copper and brass and the two steels, separately or conjointly.

Rings.—Fig. 1 represents two rings: the one, A, consisting half of copper and half of brass; and the other, B, half of English and half of German steel. If the four metals are used together in this form, two rings are worn on the same fingers, or on two fingers of the same hand. A or B, is, on the contrary, sufficient alone, when rings of copper or brass merely, or of the two steels merely, are employed.

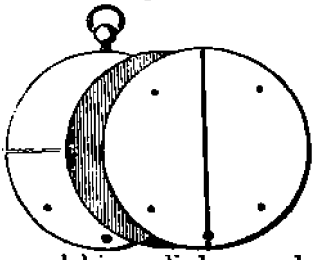
Fig. 1.



from these causes, it may still cure when well administered. The dose of it, as of every other medicine, may be reduced till it must agree.—JOHN ELLIOTSON.

* It is not exactly the copper of commerce: and the same may be said of the other metals: but it is an alloy of copper, containing, of copper, 88; zinc, 10; antimony, 1; tin, 1. This I have found more useful than pure copper.

Fig. 2.

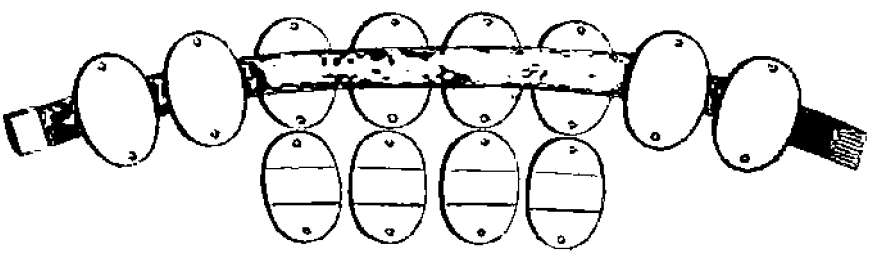


Medals.—This is a medal of its true size. On one side are the copper and brass, on the other the English and German steel. The metals are in fine plates, from half to a whole millimetre in thickness, but fixed upon a shield of leather or cloth for the purpose of preventing the galvanic contact of the two coppers and the two steels. Either side of the medal is applied, accordingly as we desire the properties of the copper and brass or of steel: and, if we wish to use all four metals together, we employ two similar metals united by a little chain, as seen in fig. 3, so that one presents the copper and brass, the other the two steels.

Fig. 3.

Chains.—Another form, intended especially for moist application or metallic baths. The little metallic plates are single, and serve, by the addition of a small series of two or three plates of different metals, to compose chains of all lengths, presenting at pleasure the copper and brass or the two steels, or all four metals at once.

Fig. 4.

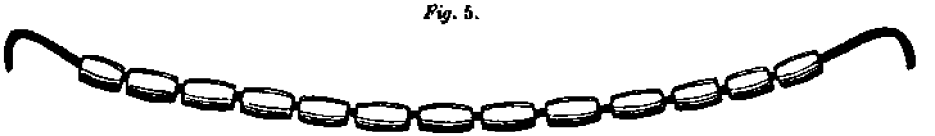


Armatures (a new form).—Armatures of 4, 8, 12, 15, 20, 30, &c., small plates or double pieces, each formed of different metals, and presenting copper and brass on one surface, and German and English steel on the other, alternately.

Galvanic contact is prevented by little pieces of pasteboard, cut in the middle so as to permit the free circulation of an elastic band, which serves to fix the little plates of the armatures, and, when necessary, to further separate them from each other.

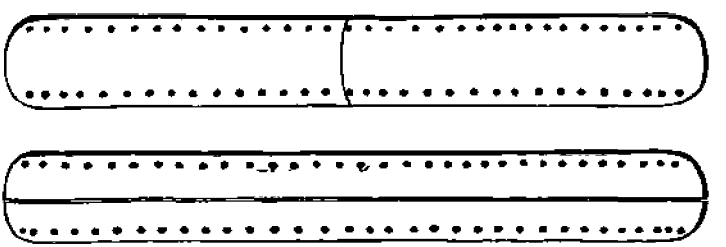
If it is wished to have the copper and brass, or the two steels, next the skin, the plates are applied on one side or on the other; and, when the four metals are to be applied together, we have only to turn one half upon the other surface, or previously to thread the little pieces so as alternately to present the copper, the brass, the English and the German steel, towards the skin. This armature is very easily applied as a bracelet, a bandeau for the head, a necklace, or a large girdle, as a preservative against cholera. I now prefer it, and I give the same form to all the metals, gold, silver, &c., which are indicated by exploration when I find copper and steel in operation.

Fig. 5.



Necklace.—A metallic necklace, the well-known form of which is employed for infants and young children.

Fig. 6.



Busks for Stays.—A busk for a stay seen on two sides. On one side, copper and brass; on the other, English and German steel.

A busk may be made with the four metals on the same surface: but this is no great advantage.

Fig. 7.

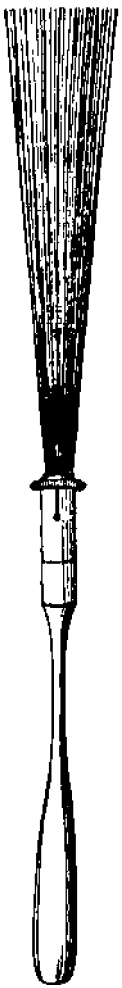
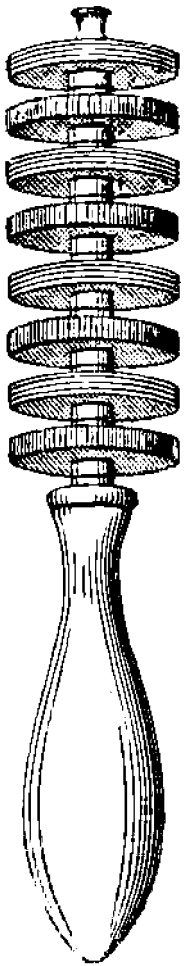


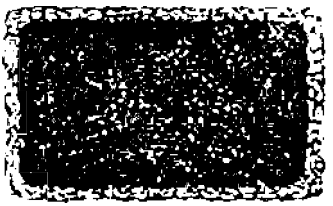
Fig. 8.



Rod for percussion (fig. 7).—A rod for percussion with a bunch of fine wires (about a millemetre in diameter) in nearly equal proportions.

Indian Strigil (fig. 8).—An Indian strigil for friction: the wooden roulettes are covered alternately with rings of copper, English steel, brass, and German steel.

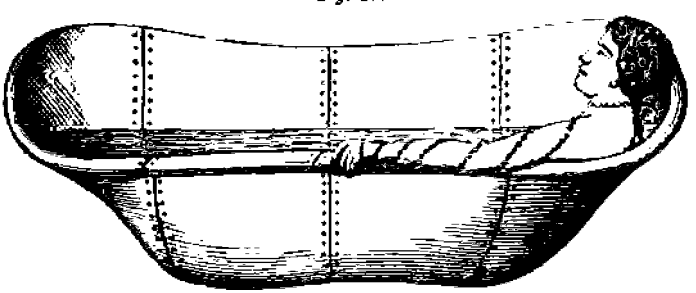
Pads, or Metallic Poultices.— *Fig.* 9.



A sheet of padding, or sort of metallic poultices. It is a cotton chard, about 30 centimetres by 25. On one side is spread a fine layer of filings or small shreds of copper, brass, English or German steel, previously mixed with a proper quantity of a solution of gum, or sugar, or of treacle (the latter prevents the oxidation of the metals, and gives a certain degree of malleability to the pad), and then spread with a few filaments of wadding to destroy the asperities.

By these three latter kinds of metallic applications—rods and strigils on the one hand, and pads on the other—we evidently obtain a rapidity of percussion and friction, that in the two former cases brings the appropriate metals almost every moment into contact with those parts of the skin on which we wish to act, and in the third mode of application, in consequence of the tenacity of the metal that allows no portion of the skin to escape either, there would be no advantage in adopting any other arrangement which would allow the employment of two metals only at pleasure under the same form.

Fig. 10.



Metallic Baths.—A bath formed of equal parts of the four metals; or, what is better, of copper and brass or of the two steels only,* for the application of copper or brass or English or German steel, or of all the four metals together, over a very large surface, and dry or wet.

In the latter case, the person places himself indifferently at either end of the bath, and his upper parts are then

* To avoid certain difficulties, I have hitherto limited myself to making the baths of the two metals instead of copper or brass only or of steel only.

covered with filings or fragments of the four metals, just as in giving a sand bath.

This form of bath is more especially adapted to dry application. For moist application, we place chains of the same metal as the bath at either end alternately upon the English or the German steel: and, if we desire to increase the surface of the action of the metal without employing the filings, we place the chain around the limbs, or even around those parts of the trunk that are not in immediate contact with the bath.

Whenever the filings are employed, those must be selected which contain no dust, and which, like the portions of copper, brass, and steel that are obtained in the manufacture of buttons or studs, are large and round enough not to get into the skin.

Such are my arrangements for applying the metals efficiently and conveniently, both in the treatment of nervous affections, in the cramps of cholera, &c., and in the prevention of cholera. The expense of all these apparatuses is very moderate, with the exception of the bath, which can be procured in particular places only, such as Neothermer's, *Rue de la Victoire*, where I have placed it in the first instance, and, although among them there are several, such as the medals and the metallic pads, which are not likely to be so much liked, I have ordered large numbers of them for the purpose of adapting the metals to all kinds of applications, from the most limited to the most extensive, and from those calculated for hollow places to those intended for muscular masses.

Wishing to add to all these advantages, and to prevent, among the more easy classes especially, the little inconveniences which may result from the oxidation of the metals interfering with the cleanliness of the person, I sometimes use bracelets, armatures, medals, and necklaces plated with *gold* or *silver*; but not till a preliminary trial has satisfied me that the fine layer of plating does not sensibly interfere with the action of the copper, brass, or steel. If we find it to interfere, the patient must lose the benefit of the treatment; or the most delicate must put up with a little stain of rust or verdigris, which, I must remark, readily disappears under soap and water, or a weak solution of oxalic acid, about a pinch to a quarter of a pint of water.

N.B. To avoid all misconception and to secure myself at the very first from the chance of counterfeit apparatus, I entreat patients and medical men to apply to respectable tradesmen only for the armatures and the other metallic

articles which they like. This advice is indispensable, because, on the one hand, my copper, being an alloy of zinc, tin, and antimony, is made expressly for me, and is therefore dearer than the copper of commerce; and, on the other, the value of the steels is to the value of iron plates nearly as 6 to 50, without any difference being perceptible to either sight or touch, and we have always to fear imposition.

Preventive treatment.—Nervous diseases, above all others, require preventive treatment; for, not merely in their production have they a perfect system, which, if well understood, renders escape from them more easy; but, if they once establish themselves in an individual, we too frequently find their victims long subjected to all sorts of miseries. We cannot therefore begin to watch too carefully over the nervous system of those who are hereditarily predisposed to them. If the parents of a child labour under nervous affections, it ought, when a month old, to wear such a necklace as is represented in fig. 3, instead of the little ball of bone, amber, or ivory, probably in common use only because there was nothing better. At the time of dentition, the few grains of metal that compose the apparatus will often prove very useful in liberating its young organization from the excess of nervous energy which so frequently gives rise to great excitement, and occasionally to fatal convulsions. When necessary, we must add to it two rings of the form of those of fig. 1, but large enough to be applied alternately to both arms immediately above the elbows: and, if that is insufficient to at least lessen the agitation of the little patient, it is because one of these four metals does not suit the individual. In this case, it would be well to make a metallic examination of the parents, and to replace the copper, brass, and steels by the metal which succeeds best with the father or mother.

When the child is older, convulsions, hooping-cough, and other nervous affections of infancy, are no longer to be feared. If it is a boy, keep the two rings above the elbow: if a girl, her rising vanity will no doubt make her prefer one or two bracelets of the same metals, especially if you have taken care to plate it with gold or silver; or she might prefer wearing one or several rings, which may be of any form she likes. In no case forbid this little discharging means, for the success of Georget's steel rings proves, in regard both to medals and mere rings,* that there are not more little contrivances in medicine than in politics.

Up to the period of youth, let neither boy nor girl lead

* We occasionally meet with nervous patients who have lost the suscepti-

a too sedentary or studious life; but, on the contrary, try to strengthen the muscular system by every sort of exercise appropriate to the sex of each. Gymnastics may very often prove useful: and if, in the various exercises of the arms, upon which especially you must insist unless there is some special reason against it, the girl loses a little of the delicacy of her hands, be assured that her future husband will find ample compensation in the freshness of her complexion and the beauty of her shape.

Be careful to preserve the ripening young girl from all emotion, and let her not mix too early in society. Let her stays merely preserve her shape, without compressing her waist: let her bed be hard rather than soft; let her retire at a regular hour, and not sleep longer than is necessary. Also, we must never forget that in the repose of the night we collect much, and ought not on getting up in the morning to omit washing the whole body with cold water, followed by dry frictions of the limbs, even although the apparent feebleness of an individual should seem to forbid it. Lastly, the diet should be nourishing, but not stimulating.

If these rules of reason and experience are carefully followed, the nervous energy of the young girl will be properly balanced; she will lose none of her sensibility or muscular power; and the catamenial function will begin without difficulty at the proper period: whereas, if they are neglected, you will have to fear a storm at the critical period of female life. If the new function is established with difficulty, you will assist it greatly by an armature of the four metals worn upon the loins and lower part of the abdomen during the day, and lower down during the night. In boys, nervous derangements are less to be feared and will in general be easily overcome: so that it will be sufficient to insist upon attention to the general health in the ways already mentioned, to watch over his connections and his new habits at this period of the passions, and to strengthen in him the taste, which we almost all have at this age, for arms, riding, hunting, and all exercises, and to give him every opportunity of usefully enjoying the abundance of his nervous energy. By this simple precaution, puberty will take place without those nervous symptoms so common in the present day. The man will be robust; the woman a fruitful mother; and, at a later age, having been fortunate enough not to have allowed themselves to be

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bility of pain everywhere, in their upper extremities especially, except near a ring, the metal of which, whether gold, silver, copper, or steel, has proved perfectly adapted to them.

neither been depressed by grief nor excited by joy, will quietly reach the period when the nervous system no longer predominates over the rest. But if, from one cause or another, the force of the disease triumphs, and head-aches, neuralgias, pains of the internal organs, or spasms, general or local, accompanied by loss of consciousness, take place; if hypochondriasis, melancholia, or any other more serious disorder of the moral or intellectual functions, the affection will be, to my view, the very same except in intensity and require fundamentally the same treatment.

Curative treatment.—The first point, in the useful application of one of the new armatures (and what I am about to say in regard to them is applicable to all the others), is to determine which metal, *copper*, *brass*, or *steel*, is to be preferred.

In treating the cramps of cholera, or preventing the disease altogether, the point is clear, and copper must be applied directly to the skin: but in nervous affections the following course must be pursued. In an urgent case, (and some nervous symptoms require to be checked instantly,) such as violent convulsions, all the four metals should be applied at once, the pieces of copper or brass being arranged in one of the two ways pointed out in the description of the armatures. In common circumstances, if the patient has previously taken iron medicines, (and few nervous patients in the present day have not taken them,) should the medicine have proved useful, the two steels should be employed: in the opposite case, copper or brass is likely to be most useful, and the more likely if somnambulism has occurred. The result of my trials upon several patients in London is, that all the somnambulic patients were susceptible of the action of *copper*; and that this metal, the properties of which in these extraordinary cases I shall soon make known, as well as the diametrically opposite properties of *steel*, is a valuable touchstone of the various susceptibilities of the state called somnambulism.

As to the part to which they should be applied, I have spoken too fully upon the relation of cause and effect that exists between the *negative* and positive phenomena* of nervous diseases not to render it unnecessary to repeat that, though we should, at the utmost, palliate only, analgesia, anæsthesia, amyosthenia, &c., are the symptoms to be combated with the metals as well as with other measures.

But, if the patient has not been treated previously, has

* See No. XXXIX., p. 241.—*Zoist.*

never shewn signs of somnambulism, and the previous history throws insufficient light upon the case, three courses are open to us:—

1. To ascertain carefully at first the degree of sensibility at the fore-arm, by means of pinching and pricking; the difference being observed between the sensibility to contact and to pain. Then to apply the copper or steel half of the armature on the right side, and the other half with the other metal on the left; and an hour or two after the return or augmentation of sensibility in one of the fore-arms will be exactly 60 or 70 times greater in the hundred from the proper metal.

2. If there is the least difficulty in this examination, as the patient cannot suffer from delay, we must apply the copper and brass or the two steel halves of the armature; and, in three or four days, either the continuance or diminution of the nervous disease will inform us whether we ought to continue the application or use the other side of the armature.

3. Lastly, if any doubt remains regarding the action of the copper or the brass, employ all the four metals of the apparatus at once; just as in urgent cases: and, if the patient derives no benefit,—a circumstance which may happen in 30 or 40 cases out of 100 when the metal is not the proper one, we must either make a complete examination, or, as the susceptibilities to the metals are marked, we must bring these to light by the various means already pointed out, avoiding, in every instance, to fatigue the patient by useless applications if after a short time any improvement is perceptible.

At the same time, to use all the hygienic means of prevention;—frictions of the limbs, not with brushes, hair-gloves, &c., only, but with strigils, which unite mechanical action with the influence of the most active metals; percussions of the indolent muscles with metallic rods; all kinds of muscular exercise without fear of fatigue; in short, to increase strength and sensibility, and bring these to a more healthy condition.

To give the preparations of the same metal internally which is used externally; in short, when copper, brass, and steel are inefficacious in the dry form, to give them wet, in the form of a bath.

I have already said that the bath may be of three forms: a simple bath of copper, brass, or steel, with plain or slightly salt water—four pounds of sea salt: or, in addition to the metal of the bath, a long chain of copper, brass, or steel is

put around the arms and legs; or a bath is made of filings of copper, brass, or one of the two steels, in which the patient is kept from half an hour to two hours. I cannot too strongly recommend the wet forms for cases in which the dry forms do not completely answer. But, unfortunately it is, and will always be, the most difficult to procure, because, except at some large bath establishment, as that of M. Neothermer, a long time is likely to elapse before the general use of my bathing vessels will cause the expense of them to be incurred.

The excitability of the nervous system, although shewn by merely sudden redness of the face, palpitation, or a concealed excitement of the feelings, by general trembling, copious evacuations, faintings, or even delirium, displays itself by their suddenness and the disproportion between them and their causes.

This excitability has infinite varieties. To say nothing of the differences in this respect according to sex and age, residence in town or country, between artists and artizans, persons of fashion and those whose nervous systems have been early accustomed to a more regular life; the excitements of the nervous system present other great variations in individuals who appear subjected to the same influences. Thus in the very same classes we find persons of so calm a temperament that nothing excites them, and the most violent inundation would not prevent them from being completely masters of themselves. Others, again, placed at the opposite extremity of the scale of impressionability, possess so morbidly excessive an excitability that the least sudden noise, the least news, upsets them, or at least disturbs some of their functions.

In the latter, indeed in all nervous patients, great perturbations of the nervous energy are readily produced: it is easily displaced from organs in which its accumulation had already begun to occasion a morbid activity of function with all the consequences, and transferred more uniformly, or even, when we desire, removed, by means of the metals.

In others, on the contrary, nothing is more obstinate than this energy in health; and it is only when, by the force of the disease itself, it has acquired a certain excitability that we can hope to render it obedient to us sometimes. It is our duty, and will be our duty, to put other restraints upon it occasionally; for the nervous system of some of those strong and robust constitutions that we all have met with has been too singularly disturbed to be easily attacked by simple and external means. If it has not yet attained a sufficient degree of excitability, apply a metallic plate to the patient: and,

provided the metal is proper, the nervous energy, solicited only as two, and maintained, if one may say so, as four, will remain within its natural limits, or will not permit itself to lose more than a very inappreciable quantity: you have then to do with what I have called the dissimulated metallic susceptibilities.

In this case, it will be useless to multiply the application, unless you increase the attractive force, of the metal; or, unless, if you do not interfere, the nervous disease itself or some fresh causes lessen the stationary condition of the nervous energy: and the only means by which I have cured the disease has been by fulfilling one of these two indications, and, if necessary, both.

In order to fulfil the first, increase if possible the activity of the metal. There are two ways of doing this. First, to moisten the armature by placing between it and the skin a constant layer of plain or salt water by means of flannel or a compress wetted, and give to the metal a rough instead of a smooth surface. In the latter case, there is something similar to what takes place every day in a house when we expose two coffee pots to the fire,—one of which is as smooth and polished as the other is black and embossed. If we are using copper, brass, or steel, we readily combine both means by taking the filings of either metal and a little sugar and water, with the view of making a kind of poultice (the sugar prevents oxidation). These poultices are very efficacious, and lately cured (in Major ——'s family) a wry neck, in a few days, that had existed for eight months.

To fulfil the second indication, the metallic susceptibilities will be ascertained by giving medicines, which, like the salts of strychnine, exert upon the central nervous system either a very powerful expansive or centrifugal action.

The preparation which I prefer is the tincture of nux vomica. Every morning and evening the patient should take from five, six, seven or eight drops successively to 20, in one or two spoonfuls of sugared water; and, when this does not dislodge the enemy, I alternate them with sulphate of quinine, which often acts so decidedly upon the nervous system and its diseases.

But a measure which appears superior to these is MESMERISM. Indeed we seldom have met with a patient who, having been treated mesmerically, does not answer to a metal, although he had never been sent to sleep; and in our next memoir we shall see how well the metals and mesmerism co-operate.

Let me repeat that it is perfectly useless to fatigue a pa-

tient if the metal has not acquired power enough, nor the nervous system susceptibility enough, to give in the intervals of their application sensible results under the pin or the dynamometer after an application of the suitable metal.*

VI. *Cure of an appalling case of Obstruction of the Bowels, accompanied by stercoraceous vomiting.* By W. J. Tubbs, Esq., of Upwell, Cambridgeshire. Communicated by Dr. Elliotson.

"Is any one rash enough to look for honourable dealings from the man whose professed calling is an imposture; whose very existence is drawn from the daily practice of fraud; who is amenable to no responsibility; who is under no restraint but the remote and almost inappreciable fear of a trial at the Old Bailey?

"Let those who lightly talk of 'free trade in medicine'—who encourage homœopathists, mesmerists, Coffinites, practising druggists, *et id genus omne*, reflect upon the consequences to society. They are directly fostering fraud, nursing iniquity, and spreading social crimes in a Christian country, such as we are accustomed to denounce as the peculiar disgrace of barbarous and heathen nations."—Mr. Wakley, *Lancet*, May 7, 1853.

"We leave it to those who have leisure and taste for the amusement to analyze the various shades of darkness between 'homœopathists, mesmerists, Coffinites, practising druggists, *et id genus omne*,' whom we classed together, and still class together. Splitting hairs is not our custom."—*Ibid.*, May 14, 1853.

Elizabeth Stevens, aged 16, living about half a mile from my house, assisted her mother to lift her sister, who was in a dying state, from one side of the bed to the other. Shortly after this she felt a sudden pain in the left side. In a few hours diarrhœa began, attended by fever, hurried respiration, and a quick pulse. I ordered a blister, and she took digitalis with hyoscyamus and liq. ammoniæ acetatis. As her sister had died of decline, it was supposed that she would soon follow.

For several days there was a teazing cough. The rector —the Rev. William Gale Townley, called to ask me if cod liver oil would be of service. This was given seven or eight days. During this time a soreness was felt in the left side.

On the 20th March sickness came on, and lasted several hours. I entered the house shortly after she had vomited a

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* Though I have been at the trouble of translating Dr. Burq's three papers, (and great trouble it has been from the excessive carelessness of the handwriting and the foulness of the copy sent by him to me,) and I have forwarded them to *The Zoist*, I beg to decline all responsibility. I know not whether his observations are well founded: but I am always anxious to promote the publication of what is new, if not evident absurdity and disgraceful imposture like *spirit*-rapping and *spirit*-table-moving: lest a good truth should be lost, at least for a time, through indifference at its announcement.—John Elliotson.

glairy fluid, streaked with blood. As the bowels had not been relieved for nearly two days, I ordered a saline prussic acid mixture with calomel and colocynth pills. There was no relief of the bowels, but an increasing irritability of the stomach.

When I saw her at night, I ordered croton oil in combination with hyoscyamus and calomel, continuing the prussic acid mixture, with a mustard poultice to the stomach. Enemas were tried, but only unloaded the lower bowel. I introduced a very long tube as far as I could. I now had recourse to croton-oil pills every two hours, telling the mother that some might be retained. I ought to have stated that stercoraceous vomiting had taken place before I began giving the croton oil.

Early in the morning on Saturday, the 25th of March, her mother, thinking her daughter must die from the state of exhaustion through constantly vomiting her motions, was on her way to my house, when, happening to meet with Mr. Heming, a surgeon, who was on his return home from a midwifery case, she asked him to see her daughter: and he kindly did. The mother returned with him for the medicine, and was directed to give a powder at twice. All was rejected.

Nothing was retained on the stomach day or night, until Sunday morning the 25th, after my first mesmerising her.

I visited her three times on Saturday.

The last time was at eight o'clock in the evening. Mrs. Massa and Mrs. Pawley had been fanning her most part of the afternoon: she had vomited several motions during the day: her countenance was anxious and haggard: her eyes dark and sunken: her pulse weak and thready, 146: her tongue moist, coated with a yellowish fur; its tip and edges red: her cheeks of a dark circumscribed redness: the alæ of the nose contracted: the rest of the face as pale as snow: the temperature of the body was low: the knees drawn up: pressure gave pain in the left side.

I was about leaving the room, when, taking as I thought my last look of my patient, I said to the mother I should like to try what mesmerism might do: and, obtaining her consent, I soon pulled off my coat, took my seat by the side of the bed, and, with an earnest stare to do my best, *I succeeded in throwing her into balmy sleep in less than ten minutes.*

I continued making passes for some time. I raised the arm, which dropped as if it belonged to a dead body. I said to the attendants, who were all anxiously watching my movements, and were three, Mrs. Bates, aged 73, Mrs. Grey, aged 50, and the mother, all residing in this village, "She is now

in a happy state. I will try to make her get up, and then will endeavour to act upon the side by means of my breath."

At my wish she gently rose, and was placed on the utensil.

I said, "Now, my dear, try and get your bowels relieved and I will help you." I breathed on the left side until I was quite tired: and she exerted her abdominal muscles. Only a little flatus escaped. She tried for some time, and then she lay down again. I said, "*Are you easy?*" "Yes." I now took her out of the sleep by breathing over the eyes. She had not felt me raise her arm, but said, "I feel better." I then sent her off again, and mesmerised her until I was in a profuse perspiration. I now left her, telling her mother I thought her bowels would be relieved before morning.

In returning home I called at a friend's house: and, meeting there Mr. Hanslip Palmer, solicitor, and Mr. Harris, land surveyor, I told them I had been mesmerising a poor girl who I thought would die; that I hardly expected it would be of any use, but "*dum spiro spero;*" and bid them good night.

At eight o'clock in the morning I was exceedingly glad to find the patient *wonderfully better.* She had *first slept forty-five minutes,* vomited *once,* and *fallen asleep* again *for half an hour, when she called for some cake and wine, which she took and kept down,* and then said she felt *so sleepy that she must have another sleep.* On waking she had enjoyed a piece of toast and a cup of tea. At twenty minutes past seven she had felt so well that she got out of bed, and had a copious evacuation from the bowels.

She had another before dinner.

At that meal she enjoyed a piece of pudding and boiled mutton, and drank some wine. She said, "I am all right now, Sir: my body feels as soft as a glove." Her countenance was strangely altered for the better.

I mesmerised her night and morning when I could find leisure: at other times she was operated on by her mother.

On the fourth day she sat up, and would put on the very clothes that were intended to lay her out in.

The rector of the parish visited her about an hour before I mesmerised her, and was, I believe, of the same opinion as the rest of us were,—that "all who live must die, passing from nature to eternity," and that her's was a *dying case:* and I am sorry to say now, that neither the rector nor his curate (the Rev. E. Marshall, of Elem), who both daily visited the house, has the honesty to acknowledge that mesmerism cured her, but maintain that the croton oil did the work.

I wish my readers to know, that, on the very Sunday I

mesmerised her, she was prayed for at Upwell Church, and the following Sunday the curate, at her desire, returned thanks in church for her speedy restoration.

An account of this extraordinary case was in our papers the two following weeks.

The patient is now enjoying perfect health, and is extremely grateful to me for having mesmerised her.

W. J. Tubbs.

Upwell, June, 1853.

NOTE BY DR. ELLIOTSON.

*** The incredulity of the rector and curate was the result of gross, yet pardonable, ignorance. But the consequential fellows and members of our medical colleges and societies, our journalists, and the busy *reformers!* of the profession, should blush and take a lesson from Mr. Tubbs—from an honourable, benevolent, intelligent, and fearless inhabitant of a humble country nook.

I received a letter from this excellent man two months ago, from which, without his permission, I will venture to make an extract.

"My dear Doctor,—I am now a convalescent patient, and am grateful that God has again spared me once more to join my good wife and daughters. Of late I have had much to do by night and by day. I caught a severe cold about a week since, and daily augmented it until I was obliged to take to my bed. I was icy cold for twenty-four hours, until my servant (who is an excellent servant, as well as a good mesmeriser, and one you shall have in London some day) mesmerised me for an hour and a half, on the 15th ult., when I returned to my bed with a little warmth *within me.* I took the following, liq. am. acetatis with minute doses of antimony (I would not take salts or nitre, as I knew you would not like me to do so, owing to my left kidney having been affected) every three or four hours, with hot mustard poultices occasionally applied to my chest. I was mesmerised night and morning. At each operation I felt more warmth than from all the sardorifics I had taken and the stimulating poultices which had been applied.

"On the night of the 17th I was very hot, restless, and felt much oppression over the sternum, with a pulse quick and strong, and a dry cough, which was followed in a few hours by acute pain *under the right clavicle,* occupying a space about the size of a five-shilling piece. This was between two and three

o'clock in the morning. My wife, finding me very uneasy, immediately got up for the purpose of sending the servant to the druggist for twelve leeches. I said, 'Tell the boy to come to my bed-side, and try and ease this pain by some passes; and if, after mesmerising me half an hour, I am no better, then let us apply the leeches.' My wife left the chamber door unlocked, and got beside me. I took my wife's hand, and said, 'If I feel better, and inclined to doze, I will squeeze your hand, which will be a signal for the servant to go to bed.' In the greatest fear that I was becoming the subject of pleurisy, and a horror I felt of being bled and calomelized, and having my brain stupified by opium, I was resolved to hazard my life at the expense of a little *humbug* called mesmerism. However, at the expiration of three quarters of an hour, I was delighted to find the enemy about taking its flight: a few minutes afterwards I felt 'nature's soft nurse' stealing on my brain. And here ends my tale, for I never woke till half-past eight o'clock, when the servant-maid, as usual, knocked at the door to remind us that breakfast was near at hand. Even then I could have slept on and taken my rest. On turning over I felt a pain in my *old spot* (the *left kidney*), which increased by my exerting the diaphragm. I got my breakfast in bed; and, finding the pain no better, I said to my wife, 'Send the boy up; and he shall try and take this pain quite away.' The boy soon came. I said, 'You got me to sleep, and removed the pain from my breast: you shall try and ease me of this pain in the side.' He accordingly made passes for a few minutes over the seat of pain, and then gradually drew down the pain off by the toes. Suffice it to say, it has not returned.

"I have often, my dear Doctor, removed the pain from various parts of the body by locally mesmerising patients: but little thought that I myself should be relieved in such a manner.

"I remember a few years back going into a druggist's shop in the village, and seeing a butcher's wife waiting at the counter, with her back towards me: and, having often heard her say that she would give anything if she could but get rid of the pain in her back, (I once attended her on purpose to try and relieve her back, but did not do so,) I thought it was a nice chance for me silently to mesmerise her while she was giving orders to the druggist. I stood within a yard of her, and made slow downward passes, earnestly wishing to relieve her. This I am quite sure of, that she was not aware of my intention of mesmerising her, and she always greatly objected to the name, much more the application, of mesmerism.

"Presently she cried out, 'What are you doing to my back? you are drawing me.' I said, 'Only taking the old pain away.' She said, 'I can't stir.' 'No,' said I, 'nor shall you till I have got it out of your leg.' 'Well,' says she, 'pray make haste.'

"I made passes down the left leg till I got the pain from the loins to the knee, that she told us of. A few more passes brought it quite away. 'There,' says she, 'if that is what they call mesmerism, it is no bad thing.'

"It is not many days since I saw her and asked her how her back was? 'Quite well; have never had the pain since you took it away at the old shop.'

"About a year since I attended her daughter with severe chest affection, whom I ordered to be daily mesmerised. This was done by a sister and sometimes by the mother for several weeks, and she perfectly recovered.

"Though I do not practise mesmerism myself, I still order it to others, and have at this time two patients who are daily attended to by my mesmeriser. I will always support a good cause.

"A doctor, to whom I wrote the other day to tell him I had sent two photographs of a wry neck* case to the Exhibition at Wisbeach that I had cured by mesmerism, in his note, alluding to mesmerism, said, 'It is more likely to create in weak and ignorant minds scepticism fatal to the cause of true religion, than to benefit mankind.' Such nonsense I could not stand, and accordingly sent him this reply: 'How any science can be repugnant to the precepts of religion, I am yet to discover; and I should be willing to abandon it altogether if you would be kind enough to point out to me such pernicious tendencies. My views of things have quite an opposite tendency: for I consider that where we have clear evidence from our senses and principles of knowledge, reason becomes the proper judge; and, though religion, by agreeing with it, may confirm its dictates, yet cannot in any case invalidate its truth: 'nor are we obliged to give up the clear and evident sentence of reason, and quit it, under the pretence of those who consider it as inconsistent with their own notions of faith.'"

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* See *Zoist*, No. XXX.

VII. *The Mesmerisation and Movement of Tables, &c., considered: with a notice of a recent pamphlet, La Danse des Tables, phénomenès physologiques démontrés, par le Docteur Félix Roubaud.* In a letter to Dr. Elliotson by the Rev. George Sandby, Vicar of Flixton, Suffolk.

"But, though every body is constantly performing the process described in the second book of the *Novum Organum*, some men perform it well and some perform it ill. Some are led by it to truth, and some to error. It led Franklin to discover the nature of lightning. It led thousands, who had less brains than Franklin, to believe in animal magnetism. But this was not because Franklin went through the process described by Bacon, and the *dupes of Mesmer* through a different process."—MACAULAY, *Essay on Bacon.*

Rue Richepanse, Paris, May 28, 1853.

My dear Elliotson,—All Paris is in excitement at the "dancing of the tables,"—as they call it. We have heard of nothing else since our arrival. So engrossing is the topic, that it has superseded the marriage and the illness of the Empress, and become the rage of the day. Certain marvellous facts were just beginning to be mentioned in London before we crossed: for the two extracts from foreign journals, that had appeared in *The Times*, had directed the attention even of many persons, who had not mixed themselves up with any belief in the spirit-rappings, towards a consideration of the question; and I had heard, as you know, of two or three eminent men of literature and science who had succeeded, as it was said, in these experiments. But the sensation in Paris far surpasses anything that you could have imagined upon such a subject: every acquaintance that I have met refers to it: men, women, and children begin at once to tell you what they have seen or done: and the walls and shop-windows of the booksellers are covered with *affiches* and with woodcuts, advertizing and illustrating different pamphlets on the subject.

I determined to judge for myself, and to lose no time in bringing the alleged results to a test. And I was fortunate in having friends, who were acquainted with the "conditions" which are said to be necessary, and who had themselves assisted at former experiments. Five of us, then, being four ladies and myself, placed ourselves before a small round mahogany table, which went upon castors, observing certain instructions, of which I will speak presently. In about ten minutes, the table began to creak, and slightly to heave, and at last to move in a most decided way. We had to follow it in its course, as well as we could. The fact to my mind was undeniably established: however, as this small table went on *roulettes*, it was suggested, that we might unconsciously have given an impulse to the table and caused the motion ourselves,

so we determined upon another experiment. We selected a mahogany card-table, which was closed or doubled, and covered in the inside with cloth. Seven of our party sat down: but we were not successful: there were occasional creakings and heavings, and, as we thought, incipient movements,—but no actual motion. Whether the baize disturbed the action of the fluid, as it was thought by some of us; or whether, as I believe, that two of the ladies, feeling themselves fatigued, and becoming anxious to leave off, ceased to give the needful assistance, I cannot say: my own opinion is, that if we had been joined by additional aid, and given a little more perseverance to the attempt, the card-table would have been speedily in motion. Four of us next selected a small oblong rosewood table, not upon castors. In ten minutes the movements began. That no impulse was given, I am confident. After the motion commenced, we all most carefully avoided giving any pressure to the table. We touched it very slightly with the mere tips of the fingers, in such a way that a fly would scarcely have been injured or a flower crushed. The action, however, of the table was strong, and quick, and most unmistakeable. I consider the alleged facts to be established beyond a doubt,—and that the controversy is at an end.

Pamphlets are appearing every day in Paris upon the subject. The best is one by Dr. Felix Roubaud, called *The Dance of the Tables; or, Physiological Phenomena demonstrated.* I will give you a brief *resumé* of its contents; for though I dissent from some of the Doctor's conclusions, and though some of his short dissertations, for instance, those upon "*circonstances morales,*" "*sentiments de l'âme,*" and such like kindred topics, are mere surplusage, and introduced for the purpose of swelling the pages, still as the little *brochure* contains a certain amount of instructional and suggestive matter, and offers a succinct statement of the rules or conditions, which are, at present, assumed to be needful for success, you may be not unwilling to learn what are the author's views.

Dr. Roubaud says, in his Preface, that at first he utterly discredited every part of these revelations; but, when he found that several scientific and medical friends, upon whom he could rely, had attested the reality of these phenomena, he resolved upon making an investigation himself. "Doubt," he now asserts, "is no longer possible: whatever may be the cause,—we must admit the facts, which are constantly reproduced with a species of mathematical accuracy." "My hope is," he adds, "that an examination of the subject will be speedily commenced by some learned and scientific body.

His first chapter contains the history and the origin of the discovery. He traces, of course, its first appearance to the three well-known American girls,—with whom commenced the recent spirit-rappings,—and whose object (he thinks) was to found a religious sect. Whether he be right in that conjecture, is unimportant: but at any rate it is clear, that this action of the tables was first developed at the *spiritual* conferences of these young women, and that this rotatory movement was said by them to be caused by spiritual agency. With this part of the story we are most of us familiar: but, according to Dr. Roubaud, Germany, which of all nations in the world, through its love of the marvellous and the mystical, and at the same time its strong powers of reasoning, is best able to "separate the false from the true, and the imaginary from the real,"—Germany was the first country to receive this discovery of the "moving-tables" as a philosophical fact, apart from and unconnected with the superstition of the spiritual manifestations. To the alleged electrical action, then, of the human frame upon wooden matter, the Germans exclusively directed their attention; and at Bremen, the first investigations took place. Dr. Andreè, who, it appears, is a medical man of high character and attainments, published a letter in the *Augsburgh Gazette*, giving therein the results of his experiences. From thence the inquiry spread to Bonn,—to Vienna,—and to Paris. It is needless to add that the number of believers is immense, and daily on the increase.

Dr. Roubaud, then, proceeds in the following chapters to lay down the rules of procedure and the conditions of success; but these, I imagine, he has multiplied far beyond that which is necessary. The main conditions seem very simple. A certain number of persons place themselves round a table, according to the size of the latter, and form a chain. The dresses must not touch, and the chairs ought to be sufficiently apart so that nothing should come in contact. Rings and bracelets should be taken off, and the table only touched by the hands. The chain is then established by each person laying his hands lightly upon the table, and placing the little finger of his right hand upon the little finger of his neighbour's left. Some persons say that the palms of the hands should touch the table; others, that only the fingers should touch: I placed my palms upon the table: if it be not the best way, it is at least the most convenient, especially if the experiment be prolonged. The fingers, it is said, should not touch each other: and it is desirable that there should be no carpet on the floor: I do not believe that this condition is

essential to success; but, of course, everything that interrupts the electrical action, is prejudicial. Dr. Roubaud is of opinion that a chain formed partly of men and partly of women succeeds best: of course, youth and health are the best elements: but some parties have more power than others, or perhaps unite more harmoniously according to the constitutional temperaments of each other. As in mesmerising the human body, so in mesmerising a table, silence and attention to the subject, or what we call "willing," shortens the time. Sensations in the fingers, yawnings, pains in the arms and in the head, and something very much like seasickness, are experienced by some persons just before the tables begin to creak. I felt a marked sensation at the ends of my fingers. The development of the phenomena varies according to circumstances.

After an enumeration of some curious experiments, and of sundry analogous facts connected with this discovery, we come at length to Dr. Roubaud's conclusion respecting the *rationale* of this phenomenon; and here the writer is most obscure. What, indeed, his own opinion is, it would be difficult to guess. This motion of the tables, he says, has no connection with electricity, nor with galvanism, nor with caloric, nor with terrestrial magnetism, nor with animal magnetism; neither is the phenomenon of a moral character; there is no physiological action in the matter which thus walks and turns, neither any psychological action. "I know not," he adds, "what the cause may be, but I know and I affirm that it is none of the above." It will strike many persons, perhaps, that this learned Doctor, who displays such becoming modesty in admitting his ignorance as to the cause of these strange facts, would have exercised as wise a discretion had he not so peremptorily asserted what was not the cause, more especially, as he does not pretend to offer the slightest argument in support of his asseveration. "I often hear," he says, "the words, animal magnetism, pronounced in connection with this discovery: but what is animal magnetism? and what relation has the false, or at least doubtful, lucidity of the somnambulist with this positive and incontestable phenomenon?" This is by no means the first time that I have perceived amongst French writers, that their exclusive notion of mesmerism is that which relates to clairvoyance and its analogous manifestations. With them it is always lucidity and somnambulism, and nothing else: and here, therefore, I must agree with Dr. Roubaud that there is no connection in the dancing tables with the higher phenomena of our science; but with pure and simple mesmerism in its primary action,

there can be no question that this discovery is closely allied, if it be not, as I believe, one and the same thing.

I have always contended for and believed in that theory, which Mesmer originally promulgated, (and with every deference to Mr. Macaulay, I am not ashamed to confess myself to be one of the "dupes" of that calumniated man,) viz., that some external agent, analogous to a fluid, or perhaps to the sparks that proceed from an electrical machine, does proceed in the act of mesmerising from one human being to another. This invisible, imponderable agent I have seen many reasons to regard as being of a *quasi*-electrical character, if I might not even call it an actual electrical manifestation under the modification of physiological action. Dr. Scoresby's scientific investigations on this very point have added greatly to our arguments in favour of this view. Reichenbach's elaborate researches confirm the notion. The alleged results of Mr. Rutter's experience with a gold ring and with the magnetescope (of which I myself have seen nothing decisive) tend the same way. A variety of circumstances go to prove this transference of an external agent, irrespective of any connection with mental preparation.* We mesmerise the blind and very young children without their cognizance. We re-induce mesmeric effects upon patients, who have been previously rendered susceptible to mesmerism, without their consciousness: we mesmerise animals repeatedly; we mesmerise water, metals, leather, and paper, as we learn from the effects produced upon our patients: and this action of the tables, induced by continued contact with a chain of human fingers, is nothing but simple mesmerism, developing itself in an unexpected phase.

And the value of this discovery is considerable. We cannot, indeed, say whether it will lead to any ulterior facts, or be useful in promoting more extended information in science: perhaps not, to any very great extent: but it adds an important, it might be said, a conclusive amount of evidence towards the establishment of mesmerism as a physical truth. The theory of imagination will not hold good with wooden matter. Miss Martineau, in her clever narrative relative to the cure of her sick cow, observed pointedly enough, that the said cow was a good cow, and possessed admirable qualities as a "milker" (as we say in Suffolk): but unfortunately that she was deficient in the imaginative faculty. There was no preparation of consciousness, to speak after the pedantic

* See my Review of Dr. Holland's Theory in the Tenth Volume of *The Zoist*.

phrase of the medical world, on the part of the dumb animal: and of course, still less is there, if it be possible, in regard to the *genus*, table. Tables, useful implements as they are, at least are safe from being taxed with imposture, or designated as hysterical convulsionnaires: but then, it is said, that though there be no "expectant attention" on the part of the table, there is much on the part of those who sit round the table, and hence the source of the mistake, and the explanation of the wonder. The tables move, it is condescendingly admitted, but not from electrical or mesmeric action; but because the parties, interested in the process, give unconsciously an innocent impulse, and stir the moveable machine through impatience or fatigue. This, I perceive, is the explanation offered by the sceptical opponent. Unintentional or insensible muscular action produces the effect; and the parties, who cause this involuntary movement, are as much deceived themselves as the spectators.

Now it must be admitted, that there is a certain portion of truth, and a great deal that deserves attention in this argument; but then, like many of these arguments, it is built on partial or one-sided data. It is the truth, but not the whole truth. The sceptic generalizes from particular facts which have come within his own knowledge, and which are probably correct, and assumes that there are no other facts of an opposite nature. And this is the case with us all, with believers as well as with opponents. The anti-mesmerist, who has witnessed certain undoubted fruits of imagination or suggestion upon the human frame (for instance, those in "*biology*"), assumes prematurely, that *all* the results of mesmerism are of the same character. And the same process in reasoning obtains in regard to this new phenomenon. Table-moving, in general, requires patience; more patience, in fact, than most persons are prepared to bestow; it is often a long and wearisome pastime; and consequently it is very probable, that in sundry instances, the exhausted attention of the anxious circle is not conscious of the slight muscular movement that has caused the result. Several probable examples of this kind have been mentioned; and I do not discredit the details as they are given: but what do they prove? simply, that in those particular instances the movement was produced by muscular action and concomitant fatigue, and that, therefore, great caution and watchfulness are needed in testing the truth.

But fifty negative instances and fifty failures cannot overset one positive authenticated fact. For, on the other hand, there are numerous instances, in which this explanation of

fatigue and of long-prepared expectation will not apply at all. As in mesmerising the human frame, so also in mesmerising a mahogany table, certain persons seem gifted with greater and peculiar power, and produce more speedy and more marked results. Sometimes the motion is effected by them in the course of five minutes, or even less; and every precaution is employed to prevent any approach to assistance from muscular pressure. Not only is there no unconscious, involuntary impulse, but the mind is actively on the alert in anticipation of such an objection, and with a determination that no such an allegation shall be correctly adduced. And in fact, the intervening period is so short, that there is no time for fatigue or for over-wearied expectation to lend its aid towards the result.

But there is another point, which to my mind is conclusive against the above argument, and that is the *rapidity* with which the table often moves. It will be observed that there is no charge of imposture preferred against those who boast of their success in these experiments; all that is said is, that they are self-deceived. Now let us admit that in very many instances this slight muscular pressure has set the table in motion; I am speaking now of the incipient motions of the table; but when the latter begins at length to move with such speed, that the experimenting circle can with difficulty keep up with it, the argument surely is at an end. It is idle to suppose that the scientific men, who have cautiously tested this alleged discovery, should have been deceived at that stage of the experiment. Dr. Andrée, of Bremen, says that on one occasion "the table moved with such rapidity that they who formed the chain could scarcely follow the rotation." Dr. Mayer, chief editor of *La Presse Médicale*, at Paris, mentions that, a chain having been formed with three of his friends, at the *end of eight minutes* the rotatory movement had acquired such speed that they could with difficulty keep up with it. Dr. Hermann Schauenburg, professor at Bonn, employs similar language in respect to a small mahogany chest of drawers. I have read similar statements in regard to some other experiments at Paris. And a correspondent of the *Manchester Guardian*, who is well known to the editor, says, that "the motion increased in rapidity, and we became both dizzy from moving round, and tired with the circular length of walk or rather run. I tried to stop the table by pressing very heavily, and succeeded," &c. Now all these experiences are decisive as to the fact. It is impossible that all these grave narrators could have been mistaken. They might not be conscious of giving a slight pressure at first,

but when the rapidity of the table became such that they could scarcely follow it, it is ludicrous to suppose that philosophic men, who are purposely testing an alleged phenomenon with the wish of establishing what is the truth, should be self-deceived in a transaction of that nature. Chevreul's experiments in regard to the oscillations of a pendulum have not, as it is supposed, any bearing upon this rapid action. For it has been argued, in an attempted explanation of the table-movements, that M. Chevreul shewed, that in holding the pendulum or a ring, an insensible muscular movement of the arm set it slightly oscillating; and hence, it is inferred, that the same slight pressure from a wearied hand produces a similar effect upon a table. But there is no analogy in the two cases. The tremulous oscillation of a ring, which is so slight that optical illusion is called in, and the eye *made to suppose* that it perceives a vibration, (as in the case of the magnetescope, respecting which I give no opinion,) has nothing in common with the marked and rapid racing of a table. The comparison between the two instances breaks down at once: for in the latter case, self-deception and imperfect vision are not admissible. I repeat it, then, that we may consider the well-established fact of the *rapid action* of the table as alone decisive of the question.

A very striking incident, which I have received from unquestionable authority, presents us also with strong additional proof. The incident took place in the presence of three members of the Academy of Sciences, the Baron Thénard, Messrs. Elie de Beaumont and Becquerel. A young girl, aged 14 years, (and I cannot help observing by the way, that numerous instances seem to shew that young persons from the age of 14 to 20 are powerful agents in producing the phenomenon,) set a small rosewood table in motion after an interval of less *than six minutes*. It moved quickly and strongly. Each of the Academicians in succession placed his hands upon the table in order to stop the movement, but the table moved on. The muscular pressure, it will be observed, was here directed *against*, and not in favour of, the motion. At length M. Becquerel, having placed his two hands upon the table, requested the young girl to place her two hands over his, making a complete isolation (*l'isolement etait complét*): that is, no pressure could possibly proceed from the hands of the young girl, as the hands of M. Becquerel intervened. But the movement of the table was uninterrupted in its course. I understand that M. Becquerel, whose judgment is of value in questions of this nature, was perfectly satisfied with the experiment; and that, in short, the three

Academicians now believe in the reality of some external and newly-discovered fluid.

The names of other scientific men, both in Germany and France, can be added to the list of believers. Dr. J. Böhm, director of the observatory at Prague, assisted by Professor Schleicher, Professor the Baron Leonhardi, and Dr. Halla, has made several successful experiments,—the results of which were published in a short letter. Professor Ennemoser, an established name in Germany, has written a letter on the subject to the *Augsburg Gazette*, in which he says, "The formation of this chain is of great importance, not only in reference to the movement of the tables, but also in respect of other effects. *Mesmer was the first to throw light upon this subject*,—which is a fact little known. It was he who formed a chain of sick persons, and of persons in health, and produced the most striking results. . . . The efficient cause of these marvellous phenomena is nothing but electricity; and the rotatory movements of the tables towards the north or towards the south are brought about in accordance with the well-known laws which Oerstedt and Faraday have established." And in Paris, the truth of this phenomenon is now so fully admitted, that several scientific men have formed themselves into a "commission" for the purpose of ascertaining what is its character and *rationale*. This I have learnt through one of the members. In short, the facts are now no longer questioned.

A combination of circumstances, then, seems to prove the existence of a physical emanation from the human body. And with this physical emanation it would appear that the tables become saturated, and action commences. I was glad to observe in the last number of *The Zoist* that the acute writer of the paper upon the "Spirit-Rappings" cautiously adverted to the possibility of some "electrical" agency being mixed up with the manœuvres which he had witnessed. He had detected much that was false, and much that was effected by dexterous jugglery; still he felt that there was just room for the entrance of some other element, and that a portion of the "manifestations" might have been aided by electrical combinations. "We write," he says, "of that only which we have witnessed: of real electric phenomena we give no opinion." Subsequent events have proved the sagacity of the writer, and shewn the probability of his conjecture. For a long time I have thought that there might be a substratum of truth in these "spiritual-performances:" the manner by which the alleged communications from the "spirit-world" were accomplished, was clearly explained: still there were

points which perplexed me; and among them, were certain table-movements, in which, if the evidence were to be depended upon, I could not see how the operations of the Medium came into play. The mystery is solved by these new physiological facts.

All these discoveries tend to prove what injustice has been done to the memory of Mesmer. In one of his most charming essays,* Mr. Macaulay has truly observed in regard to the fate of the heralds of new truths, that "it is for the interest of the human race that the memory of such men should be had in reverence, and that they should be supported against the scorn and hatred of their contemporaries; —to go on the forlorn hope of truth is a service of peril. Who will undertake it, if it be not also a service of honour?" And, again, in respect to the manner in which a new truth develops itself, from its first faint glimpses, and its gradual accumulation of facts, till it shines out unto a more perfect day, Mr. Macaulay in the same essay makes observations which may apply in some degree to the progress of mesmerism. "First come hints, then fragments of systems, then defective systems, then complete systems. The sound opinion, held for a time by one bold speculator, becomes the opinion of a small minority, of a strong minority, of a majority of mankind." Perhaps, if I were required to express the present position of mesmerism, I should use the language of Mr. Macaulay, and say that it is appreciated by a "strong minority." Everything tends to shew that the time is approaching when it will be entertained by a "majority."

That these table-movements will hasten that time, there can be little doubt; provided only that mesmerists be cautious in their experiments. Especially must they be careful not to assume that in every instance, in which they appear to succeed, they have succeeded. Perhaps the real cases of success are more limited in number than that which we first imagined. If we be all diligent in testing the truth of this

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* Essay on Sir James Mackintosh's History of the Revolution. Apropos of this quotation; among the successful table-movers in England, might be named one of our most accomplished Bishops, an historian, who had met with nothing of the kind in the "middle ages," and an artist of distinguished name. These were the three warlocks who set the table in motion. And a gentleman, who received it from one of the party, informed me that another great historian, who was present and looking on, stared at the movement of the table with unmixed astonishment. Perhaps he felt some rising misgivings as to what he had once written respecting "the dupes of Mesmer," and regretted that he had been "*so very sure*" in his judgment! To feel "so very sure" himself, and think every one else wrong, is one of the defects of this great writer, who will be compelled to alter many of his observations in his Essay on Bacon.

power, its reality will be safely established: if we be hasty, impatient, and injudicious, the enemy will avail himself of our blunders, and a reaction against mesmerism be the inevitable result.

As I am well aware of the extreme and conscientious caution which you yourself exercise in the examination of every alleged fact, I am not certain that you will be prepared to go along with me in my belief. I well know, what an ignorant world does not know, that while your medical adversaries endeavour to represent you as being precipitate in your decisions, you are one of the most patient, the most cautious, and the most correct of observers; and therefore I scarcely expect your full adhesion to this new table-hypothesis. But at any rate, whether you agree with me or not; and whether you think my unscientific opinions deserving of publication or not, I must always subscribe myself,

My dear Elliotson,
Your sincere admirer and friend,
GEORGE SANDBY.

VIII. *On Table Moving.* By the Rev. CHAUNCY HARE TOWNSHEND. A letter to Dr. Elliotson.

"In answer to the lady who styles herself the *Wife of an M.D.*, we beg to state that we cannot discuss in our columns the subject she has noticed. We reply, however, to her questions in the order that they stand. In answer to No. 1. We say no.—In reply to No. 2. Mechanical pressure.—3. A deception. —4. No.—5. A juggle like mesmerism and homœopathy."—Mr. WAKLEY. *Lancet*, June 11, 1853.

I RECEIVED the following letter from Mr. Townshend in the middle of May: and, though I have no authority to publish it, I forward it to *The Zoist*, with the suppression of some names: for, like all that Mr. Townshend writes, it is too charmingly written to be lost, and I know he will pardon me.

JOHN ELLIOTSON.

Mon Loisir, Lausanne.

My dear Elliotson,—I think you will like to hear that I am safely arrived, after a prosperous journey, at my old quarters at Lausanne. I have also something to tell you which I think will interest you. I found all the world here talking of *table-moving*, and much in advance of the London world in regard to experiences. At first, I did not take much heed of these things, till a friend of mine, on whom I have thorough reliance, Sir C—— S——, a man of exact information, and of rather an incredulous turn (if anything),

told me that he had himself assisted at a table-moving, and had no doubt of the reality of the phenomenon. He was kind enough to take me to the lady's house where the experiments were made—Madame de S——'s. The experiments were made on a small round table, or *guéridon*, (something like a lady's work table,) on three legs, *without* castors, (time one o'clock in the day.) First the two Medlles. de S—— lightly laid their hands, *not* touching each other, on the table, and in about a minute it began to turn. I was then invited to place my hands also on the table, and I tried to stop it, but could not. Then Sir C—— S—— put his hands on the table, and we often shifted hands, and one or other withdrew from the table; but it kept moving round with accelerated velocity, and I was forced to run to keep pace with it. Then, by degrees, all left the table except the youngest Miss de S——, who also gradually withdrew every finger but one; and still the table kept on, nor ceased till she withdrew that last finger. But the strangest part was that Sir C—— S—— *by his will*, either expressed or mental, could make the table perform various feats. At his will, it stopped, or went on. At his will, it leant over to this side or that side, or balanced itself on one or two legs, or struck so many times on the floor with one leg, or advanced towards the window, in a sideling way—making demi-tours to the right and left. I am *quite sure* there was no trick in this. Sir C—— is incapable of it, and the Misses de S—— seemed much grieved in speaking of the way they had been suspected. If Sir C—— willed the table to lean over, I tried to stop it on the other side; but it seemed always impelled by superior force. I did not doubt of the reality of the phenomena. We first tried the table on a boarded floor *(parqueté)* and then on the carpet. It was longer before it turned on the carpet; but, once in motion, it seemed to go round with even more velocity.

On arriving at home, I took a small, but, for its size, a heavy table, with an octagon top, one foot four inches across. It has three heavy claw legs, without castors, and the wood is very rough underneath. It moves with difficulty, and I can hardly push it round in an ordinary way. I placed it in a room *without* a carpet, and called in my man Henry and one of the maids. I then, without saying what I wished to effect, made them place their hands *lightly* on the table; I also placed mine, so as to touch little fingers all round. We all *stood* up, as in the former experiment. At first indeed I *sat*, but when the table began to move, in about four minutes, I got up. My servants were astonished. The

table went quickly round. They thought I was pushing it. No! I was carried with it, and it always seemed to move more quickly than I, and I could hardly keep pace with it. My man Henry, rather acutely, asked me to take off my left hand. I did so; and so did we all successively; and yet as long as any two hands were on it, it moved round.

In the evening I tried a square table, one foot nine inches by one foot two and a half inches, with four legs, without castors, and on a *carpeted* floor. I tried it *by myself* (sitting down), and in about twenty minutes it began to move, but slowly. I rang for my man, and he put his hands on it also, when *instantly* it began to rotate with such velocity that we were forced to run, and I became giddy and was obliged to cease. I must observe we all felt tinglings in the tips of the fingers, and, after I had left off, I felt a peculiar fatigue as if I had been mesmerising. On one occasion I willed the table to stop, and it stopped; but I could not make it lean over, by my will, to the side I wished: only once, I willed it to lean to *my* side, and in about a minute it leant over rather away from me, just as I had forgotten I had willed anything.

Yesterday, I called on Miss H——, Lord B——'s sister, a lady of much intellect, and not at all of a credulous disposition. As I had heard of hat-moving, I asked her if she would try it; she agreed, and called in her maid to help. My hat was placed on a table, rim upwards. We placed our fingers *very lightly* on the rim, and in three or four minutes it began to rotate, to the maid's great astonishment. We had to move very quickly to keep pace with it; and I only stopped through a feeling of sickness and giddiness which it produces in me. Miss H—— was perfectly convinced. You see, from the shortness of the time, there is no question of fatigue, or of weighing heavily from fatigue on the hat or table. The unbelievers, all of whom will only *look on* and *not* try the thing themselves, explain it by spasmodic nervous action, muscular contraction, &c. I cannot admit this explanation, as I have seen the table move by the contact of *one* finger, and *I know* that my own hands so touched the table that they would rather have stopped it than otherwise in an ordinary way. Some persons seem to exercise a negative power. Mr. B——, a clergyman here, tells me that he *believes* in the thing—that he *wishes* to be one of the table-movers, but that, invariably, if he is present in a chair, or if he only touches a moving table, it stops. Others, like Sir C—— S——, have great positive power. The power, I am told, is developed by exercise. Sir C—— tells me that

at Madlle. de S——'s a large weighty man was placed in the centre of a circle with fingers touching him. After a time he began irresistibly to revolve: but he felt very ill after the experiment, and was forced to go to bed. Madlle. de S—— shewed me a very large round table in her drawing room which by a sitting party with little fingers in contact (though this does not seem to be an essential) was made to move in forty minutes, so that a loose carpet, on which it stands, *above* a fixed carpet, was all rolled round the legs. The *time* of moving seems to bear a relation to the size of the table and the number of persons, perhaps also to the mesmeric power of the persons.

Madlle. de S——, to shew that nobody *pushed* the table, put draughtsmen all round it (in my presence), and then we laid our fingers on the draughts, and the table moved all the same; whereas you know, had we pushed, the draughts would have moved. A sheet of paper laid on the table shews the same thing, for, if one pushed, the sheet would be crumpled. I am indeed almost convinced that these phenomena are mesmeric developments. Of course I shall investigate them further. The Misses de C—— have often made hats revolve by lightly touching the rims. They tried with two large tables at the *Elysée*, and with two parties sitting round them. There was no motion: but in about twenty minutes a lady at each table fell into the mesmeric state. One was Madame de B——, the other Miss L—— de C——; and it is curious that they could only be awakened by the gentleman who had sat, not *next*, but *opposite*, to them. Mr. L—— d'H—— could alone wake Madame de B——, and Mr. de B—— could alone wake Miss de C——. Other singular phenomena were developed, such as attraction and repulsion, sight with closed eyes, &c. At another trial another lady was similarly affected.

I think I have now told you most of our experiences, and now I beg of you to try the thing *yourself* and with *reliable* people, and then pray let me know the result. Nothing is so easy as to *try* with a hat or *small* table, and I have never found the trial last so long as even ten minutes. I observe, and so did the Misses de S——, that you must give a certain *attention* to the table and concentrate the *will*, as in mesmerism, and that, if you remit attention, the table either goes more slowly or stops altogether. They say you must not let any of the circle touch the table with their clothes, *only* with the tips of the fingers. I observed frequently that the table would stop in the midst of rapid motion, perhaps from some sudden cessation of the necessary *conditions* for its

motion. When *once* the table has been affected, it seems much more easy to do it again. At Miss H——'s we were over three minutes before the hat rotated. Then we took away our hands (at Miss H.'s suggestion), and, on replacing them, the hat went round again in a few seconds. I do really infer the action of a fluid from all this, and a certain accumulation of fluid (or vibratory action of a fluid, or medium). The fluid or medium is not electric, because Mr. Rosset (a believer) tried with an electrometer if electricity were present, but it could not be detected. This, however, does not prove that the *mesmeric medium* is not present. I can only say, all my own sensations in trying the experiment are *mesmeric*. I experience a tension of will; I am sensible of an action that passes from my brain to the table; I feel mesmeric fatigue after the exertion. Some may say, "All imagination!" but I know my own sensations. It is true that the slight nausea and head-ache may be the result of mere circular movement, but *not* other very marked sensations that I have. And Sir C—— S—— says he cannot be mistaken as to the *peculiar* sense of fatigue he has for some hours after exerting his power.

—— laughs at it all, and (though he has not even *seen* it) says that none but girls, women, or weak-minded men believe in it. Then am I, I fear, a weak-minded man.

Ever affectionately yours,

C. Hare Townshend.

*** After I had received Mr. Sandby's letter, I wrote to Mr. Townshend, requesting to know whether he had made any more experiments. The following is his reply.

John Elliotson.

Mon Loisir, 19th June, 1853.

My dear Elliotson,—I have little more to relate respecting the turning tables. Indeed, I have found that to try the experiment often is very exhausting. Nor am I the only person who experiences this effect. My cousin, Major L——, who is staying here, after assisting at a successful experiment, declared that, the next morning, he felt as if he had been dancing all night at a ball. The evening we tried the experiment Miss H—— helped us, and *four* stood round a small octagon table with three legs. After it had turned awhile, we, half jokingly, desired the table to tell the Major's age, when it immediately ceased revolving, and began with one

leg to strike. It was the leg next Miss H——. The leg struck on the ground thirty times. The Major said he wanted two days of being thirty: but, on enquiry, this came out, namely, that I fancied he was twenty-eight, Miss H—— wished the table to strike twenty-nine, but Major L—— himself, thinking he was fairly thirty, had wished the table to strike thirty times. So it looks as if the Major's will overpowered our's. I must observe, that he stood on one side, where he could *less* influence, muscularly, the table than any one else. This experiment was made so passively and quietly as to seem more convincing than most others, as to the presence of some peculiar motive power.

I must tell you fairly that I have sometimes had my doubts whether some involuntary muscular action did *not* influence the table; but, as far as I have yet seen, there is always a residual phenomenon—a something which the theory of muscular action does not exactly solve. The experiment with the draughtsmen seemed decisive as to the fact that there was no pushing; also, the revolving of the heavy square table at Mr. de C——'s appeared incompatible with the material motive force employed. This was particularly manifest when the table changed its motion from right to left into a motion from left to right. There was *then* always a moment when it was still, and would, under ordinary circumstances, have required a great amount of new impetus to set it going again in a new direction. For, remember, this was a table which our united forces could not make revolve, when it was once at rest, by mere pushing. Then, Mr. H—— tells me that his nephew, Mr. F—— M——, has written to say that he convinced himself there was more in moving tables than is dreamt of in the muscular philosophy, by setting his little children to turn a heavy large round table, which they could not move under ordinary circumstances. It moved in less than forty minutes, and, while it was in rapid revolution, he placed himself on the top of the table, and sat there with his whole weight, after which it went round as before. He then remarks, "I hardly like to say I believe,—yet how resist the evidences of my senses?"

Since I wrote, we have tried here the old schoolboy trick of lifting up a man with only the eight forefingers of four persons, when the patient and his bearers breathe together. The extreme lightness of the lifted person is remarkable, and has never been accounted for. May there not be some mesmeric agency, here, aiding the muscular?

We know that the muscles are only moved by the nerves and by neuro-galvanism. Now this last power may possibly

ıe continued on, out of the mere animal frame, so as to constitute in itself a motive agency. And this will not seem wonderful to a mesmerist, who so often projects a force beyond his own body.

Mind, I say all this only problematically, and as a seeker after truth. I long to know the result of *your* experience.

Ever, my dear Elliotson,

Yours most faithfully,

C. Hare Townshend.

IX. *The Departed Spirits.* By Dr. Elliotson.

"Black spirits and white,
Red spirits and grey,
Mingle, mingle, mingle,
You that mingle may."

"Whither are they vanished? Into the air; and what seemed corporeal, melts as breath into the wind. Would they had staid."

Macbeth.

"Solventur risu tabulæ;—"

Horatius.

The tables are beyond all doubt turned and the spirits have been scattered and made to vanish for ever from the realms of reality. Every body now sees the tables turn in his own dwelling, be it Buckingham Palace or a room which serves for kitchen and parlour and all, and can bear testimony to such facts as are described by my two friends the clergymen who have written to me on the subject. We are not indebted to philosophers for either the original discovery or even one of the endless instances which have established the fact. They have been obliged, like medical men in the case of mesmerism, in spite of prejudice to admit it; but have ascribed it to muscular pushing, exerted unconsciously. They have, however, been the very last to go and witness the movements; and it is reported that the great Alexander Humboldt once pronounced the assertions to be nonsense, saying that he had in his long life heard of strange facts which had turned out to be unfounded, and that he was too old to be caught with chaff; nay, it is reported that, when a party were making the tables spin in the palace at Berlin, he refused to go from an adjoining room to see them, notwithstanding that at length the king left the party and entreated him.

As in the case of mesmerism, the public have beaten the learned.

When they could no longer deny the myriads of fresh instances, they determined, without seeing one, that all resulted from pushing; though, they did not attempt to accuse the pushers of fraud. The tables could not be called, by Mr. Wakley and others, vile impostors, as the two Okeys were—are not hysterical females, desiring notoriety: most have luckily more than two legs to stand upon. The operators, not belonging to a particular profession, as unfortunately I do, were not assailed by professional spite on the part of their opponents: but the facts were kindly explained. The *Leader* newspaper advertized that on the next Saturday it would explain the matter on physiological principles: and the secretary of the Royal Institution, the Rev. Mr. Barlow, on the evening before the *Leader* came out, when the audience were assembled in the Institution for the lecture, astonished every body by advancing to the table before the lecturer's arrival and begging them, for the explanation of the table-moving, which no body was thinking of and which did not relate in the least to the subject of the lecture, to consult a lecture delivered a year ago by Dr. Carpenter really on "Electro-Biology," and a chapter by Dr. Holland on the effects of expectant attention—neither author being at all original in this any more than in anything else he has written; for Chevreul many years ago pointed out the occurrence of unconscious voluntary muscular action, and after him *The Zoist* repeatedly pointed out that we not only may will unconsciously, but may take in knowledge unconsciously, retain it unconsciously, and act in unconscious consequence of it, and act unconsciously. Mr. Barlow seemed anxious to be before-hand with the *Leader*.

Now I am sure that some cases of this turning are the result of unconscious muscular movement. A gentleman arrived in England three weeks ago, heard of the subject for the first time, and immediately found that he turned his hat, though he was certain that he did not intend it. He felt his arms grow stiff, and even his fingers, before the hat moved. We both tried together. The hat in two minutes began to rotate, but he felt, and did the moment before feel, the stiffness. We began again, and I managed that he should place the point of one of his fingers just upon the seam of the leather which lies around the inside of the hat: while the hat moved, I found that his finger got in advance of the seam; so that he clearly pushed the hat round, though unconsciously: and this observation I repeatedly made in subsequent experiments. Impressed with this idea, I have repeatedly experimented alone upon a hat: and always at

length moved it, but clearly push it, (though unintentionally and unconsciously,) for my hands always get on faster than the hat, and have sometimes made a sudden slip forwards. Others have noticed even my shoulders to advance before the hat. On an occasion of a table moving downwards so many times, instead of rappings being made, to answer numerical questions, I observed the hand of the young lady, on the side which moved downwards, not move with the table or after it, but before it: and here all was apparently deception.

But may not such movements frequently result from some other cause—from an occult energy? There are the facts recorded by Mr. Townshend and Mr. Sandby. A very large number of persons who have moved tables, and of others who have witnessed the movements, ridicule to me the idea of this explanation. They know of the explanation before they make the experiment: and are most careful that the tips of the fingers shall touch the table in the lightest possible way, so that you may almost see between the fingers and the table. A strong effort would be required to move some of the heavy tables, and yet they *are conscious that they make no effort*, and the bystanders are satisfied that there is no expression of effort. Some also assure me that, when they really attempt to move the table, they feel a heavy weight as well as an effort: whereas "the genuine table-turning is quite light to the hand:" and at the time some persons feel a curious pricking of the fingers and a sort of chilly heat: and some, as soon as it moves, even when it first cracks, as it often does before it moves, experience this sensation and wish for fresh air. One most truthful young lady tells me, and others have made similar remarks, that, having moved a large table a good deal one evening, it became so susceptible that they had only to touch it with the very tips of the fingers, and it would go rapidly; always however cracking first.* In some

* Mr. Dalton, of Kelmarsh, Northampton, has kindly reminded me of the following passage, which is the concluding sentence of Newton's *Principia*:—

"Allow me to add a few words respecting a very subtle spirit which pervades solid bodies and dwells in them: by its power and action the particles of bodies mutually attract each other at very small distances, and, becoming contiguous, cohere: and electrical bodies act at greater distances, both repelling and attracting neighbouring small bodies: and it is emitted from these, reflected, repelled, inflected, and it heats them: and all sensation is excited, and the voluntary motion of the limbs of animals is produced, by the vibrations of this spirit that are propagated through the solid fibrils of the nerves from the external organs of sense to the brain and from the brain to the muscles. But a few words will not suffice for this subject; nor are we yet in possession of experiments enough to determine the laws of this spirit accurately."

"Adjicere jam liceret nonnulla de spiritu quodam subtilissimo corpora crassa pervadente, et in iisdem latente; cujus vi et actionibus particulæ corporum ad

cases the fingers are convulsed before the movement begins, and the operator is out of sorts afterwards. One gentleman told me that before the movement begins he feels an uncomfortable sensation down one side that ceases when the movements commence. I have seen one case, and heard of others, in which one hand had become rigidly closed for weeks after the experiment. In the case respecting which I was consulted, the thumbs of each person had been placed on the table and the hand grasped by the next person in the circle.* The extreme facility with which a table, on which the fingers or hands had rested till motion took place, is lifted by the tips of the fingers under it, with as slight contact as possible, has been mentioned to me by several experimenters: one young lady said, "Gradually the table has risen, and remained stationary in the air upon the fingers.†

I have been unfortunate in my attempts to see the table movements. Mr. Nottage, Mr. Capern, Mary Ann, referred to in former numbers of *The Zoist*, and myself, sat one evening an hour with our hands on one of my tables in vain. Once I visited three young ladies who had been very successful, and they and myself sat the greater part of an hour with the tips of our fingers properly arranged; but in vain. Once I went and met some other young ladies who had been equally successful, and six applied their fingers, and at last I added myself to them, for the greater part of an hour; but in vain. I went to Surbiton, expressly to see the

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minimas distantias se mutuo attrahunt, et contiguæ factæ cohærent: et corpora electrica agunt ad distantias majores, tam repellendo quàm attrahendo corpuscula vicina; et his emittitur, reflectitur, refringitur, inflectitur, et corpora calefacit; et sensatio omnis excitatur, et membra animalium ad voluntatem moventur, vibrationibus scilicet hujus spiritûs per solida nervorum capillamenta ab externis sensuum organis ad cerebrum et à cerebro in musculos propagatis. Sed hæc paucis exponi non possunt; neque adest sufficiens copia experimentorum quibus leges actionum hujus spiritus accuratè determinari et monstrari debent."

* A friend writes to me:—"A young man, upon whom the moving of the tables had a most extraordinary effect, was almost convulsed; and, during the remainder of the evening, everything that he touched, workboxes, books, baskets, &c., *moved about* by the mere touch. I am told that he himself *alone* moved a large round drawing-room table. Two of my friends set the table in motion. It moved *towards* them alternately: and each charged the other with pushing it: but at each time the supposed pusher hardly touched it. The table came *towards them*, and was not pushed by them: they began as sceptics, and took the greatest care that no muscular action should come in. I recollect a stout farmer tried it, and his arms became affected and *stiffened* from the action."

† In Nos. XXXVI. and XXXIX. are articles by Non-Wist of Edinburgh, in which the lifting of a heavy man with the tips of the forefingers of a few persons, provided the fingers touch the individual, is detailed; and suggesting the possibility of gravity being lessened. Sir David Brewster hands over the subject to the mesmerists if his own explanation is not satisfactory: and Non-Wist now writes to us suggesting that the muscular strength is exalted.—*Zoist.*

experiments with young ladies who had moved great tables admirably: but they failed, both with me and without me, notwithstanding they all were desirous of seeing the table move and fully expected during the long trial that it would move. At last I again visited the first three young ladies. It was only the evening before the printers had advanced to this page in my MS. that I had this last opportunity of an experiment. I must remark that the family informed me that, very soon after I left them the previous evening, they tried again, and the table moved. When I arrived the father met me on the stairs and said the table was moving. I found the son and two daughters had been sitting at it for the best part of half an hour. It was the same table, just sufficient for four to sit round, close to each other; slight, circular, with one leg standing on a large flat circular pedestal without castors. It from time to time turned from their right hands to their left, very slowly and to a short distance; then stopped; then began again: it moved faster sometimes than at others. The father had been assisting, but now his place was vacant, and still it moved on. I sat down and joined in the experiment, and from time to time it moved as before. Every one placed merely the tips of the fingers upon the table, so very slightly that often one or other really did not touch the table. I now and then tried the hands of one or other and found the contact so trifling that movement by pressure seemed impossible. I can answer for myself. The family was that of Mr. C. R. Stanley, the eminent painter. The truthfulness of father and children and their desire to ascertain the real facts are perfect and unalloyed. They were all grave and serious in the matter. They felt assured all the time that they did not even unconsciously push the table, I watched them all anxiously and uninterruptedly, and they as anxiously watched themselves. From time to time I tried their hands during the whole of the long experiment, and I cannot discern how there was any possibility of the table being pushed. Moreover, the table always slid away from their fingers and mine, so lightly did we all touch it. It moved faster than the fingers of any of us, and got in advance of us. On placing the candle on the floor so that I could observe both the top and the pedestal, I noticed that the latter moved on the rough carpet circularly and rather forwards. At last I suggested that we should try to move the table: and of course we at once succeeded, but the motion was not smooth, and the fingers displayed clearly that they were in action. In none of their experiments have Mr. Stanley's family found the table move rapidly or otherwise than when

I saw it; and I suspect that, in many cases, the parties become excited on beholding the movement, and then begin to assist it with muscular force in spite of themselves: just as in mesmerism there is the true mesmerism, and imagination may coöperate, and may in every case afterwards produce the phenomena if the patient is aware of what you are attempting. Still there is true mesmerism, as there probably is true movement of the tables independent of muscular force.

Whichever be the true explanation of the table-moving, even the most barefaced impostor of a Medium cannot much longer refer the fact to visiting spirits, nor speak of—

> "Spirits which by mine art
> I have from their confines call'd to enact
> My present fancies." &c.
>
> *Tempest.*

In ignorant days, the attraction of the magnet, the electric spark, thunder, the hurricane, were all referred to spirits. As all people are moving the tables by a manual process or a strong exertion of the will, without those dear *Mediums*, or the invocation of spirits, or a single thought bestowed upon their little invisible worships, the imposture of the Medium must surely be seen through by the silliest of the weak. The Medium may continue to put her mouth near the table when asked to move it, and say, "Will the spirits be so kind as to oblige *me* by moving the table?" and then give a rap to assure the baby listeners that the spirits will move the table for her. But that must now end. If the Medium knew no better before, she must now. But that she did know better before is certain: for who raps out answers? She herself. I never doubted that she made the raps herself, or that she did so with her lower extremities; though I doubted that she did it by the action of one toe upon another. The explanation given by a friend of mine, in the article signed N. E. E. N., in the last number of *The Zoist* is, I feel satisfied, correct as far as it goes. But, in an outspoken pamphlet which has sold enormously, and is now in its ninth edition,* it is said that the polished leather of the boot or shoe, rubbed against the polished chair or table, gives the precise sound and intensity of the spirit-raps: and so it does. The Medium, no question, has more ways than one, probably many, of *doing* as she wishes. Still, that she makes the raps when she has no confederate, and, when I was present, did make them with her lower extremities, I can have no doubt. If you ask a question, who hears

* *Spirit-Rappings.* By One who has tried the Spirits. Ninth Edition.

it? why she does: and she is very wide awake. Then if you ask for one, two, or three raps, who makes them? They must be made by somebody; and by somebody that hears your question, and is willing to rap. Who but she? unless she has at times a confederate. Then if she evidently makes the raps (for spirits are out of the question with any but persons qualified for admission into the Asylum for Idiots or Bedlam Hospital), she knows that no spirits do rap. To say that she may refer her own voluntary action to spirits, from having been educated superstitiously, is preposterous; and she must laugh in her sleeve at all her credulous dupes, and know that they deserve a rap upon the knuckles for paying her. I would not encourage such imposition by paying for it. A gentleman engaged a Medium for a party, and invited me to it: and then the man who hired the Medium to show in England begged me to visit her and judge for myself; and I yielded to his request. I cheerfully pay Robin, Houdin, &c., because they openly tell you that all is trick; and very clever tricks these are, not like those of the Mediums, full of contemptible failures. I was shewn no table-moving at any interviews with a Medium.

If persons will observe the few cautions given in the article in the last *Zoist*, to every word of which I adhere, as I am sure does the gentleman who wrote in it of the production of the raps and the table-movement, they will find the imposture of both. Captain ——, a friend of the Rev. —— ——, was anxious to see a Medium, and went inclined to believe. However, he was told how to test the affair. He held the alphabet and his hands down out of sight, and the declaration of the spirits were all wrong and the vilest nonsense. He then, as if by chance, placed the alphabet on the table, and all instantly went on perfectly right. While he was leaving the Medium, she "hoped that he was satisfied." "No, indeed, Madam, I am not," said he; "you have told me all wrong, and nothing but absurdity." "I am sure I am very sorry, Sir. But you are at liberty to come again free of expense." He did not return, having had enough. Professor F——, of King's College, went and took no pains to conceal or lead astray, and all was rapped out correctly. He then moved his fingers very slowly over the letters T.O.M. N.O.D.D.Y in passing through the alphabet; and so the spirit rapped out that its name was Tom Noddy. These facts I can prove: and others of my friends have obtained the same results. The Rev. Mr. T. went with Major ——. He took no pains, and all was correct. The Major paused with care on each letter equally, and all was wrong. The Medium need

not see the alphabet: she judges by watching the hands, even the countenance, when it is the best moment for a rap.

We are told of a pen rising from the table, dipping itself in the ink and writing a letter! and of a bookcase unbolting and opening itself!

One Medium tells us "that messages *is* sent by her by spiritual *telegrapht* in less than three minutes to America and back, enquiring and telling her how Mr. and Mrs. So-and-So *is*, and what good or ill has befallen them; and then when the letters come in by the mail all is confirmed to the very letter!" Now this is either a fact or a falsehood; it is not a question of *delusion*. We, from other falsehoods we have detected, deny it altogether (apart from its inherent improbability), and say that this, amongst many other instances we could mention, shews to what lengths a Medium will go to delude her victims.

All physicians are acquainted with spectral and acoustic illusions from cerebral excitement, whether by disease, cerebral sympathy or mesmerism, or other sources of excitement, and these have given rise to the belief in the appearance of spirits. Many natural phenomena in inanimate matter, as bell-ringing and other noises have been mysterious, but so often explained, like the sounds proceeding from the statue of Memnon in Egypt, that all, no doubt, admit of explanation on natural principles. I have no doubt that many persons fancy they have heard these rappings and seen movements, solely from excitement. Very many people cannot observe correctly: so that it is said with truth that we have as many false facts as false opinions.

In the *Leader* of March 12th, Mr. G. H. Lewes says that his party found they could move a huge oak table with their knees, invisibly to all sitting round it, although they could not move it by their hands; and that, when the Medium tried to move it as she had promised, one gentleman twined his legs around its leg and prevented her, but felt her straining to move it, and that she at last gave up the attempt in despair.

The gentleman who wrote a portion of the article in the last *Zoist* informs me that when he requested a Medium to move the table, she sat with her legs *under* the table, *from which position she would not move*. The table, shortly after the invocation, gave a sudden lurch of about half a yard, and then stopped. It never attempted to go round, as tables now do. While all were wondering, another lurch! Some one now got under the table: no more movements! He went away: a *light* was placed and all *look*: no result. The Medium

was asked to invoke again, but, the eyes and the light being unfavourable to the experiment, there was no response.

When the Medium was asked, after the trick had been seen through, to move the tables, the eyes of the enquirer being directed to the proper quarter—to her legs, she *declined*, declaring that the order of spirits that moved tables was very *unintellectual*, and that she did not cultivate them!

All this is totally different from the table-moving now universal: for the Mediums now beg you to put your hands on the table, and thus is really produced the ordinary movement. If the Medium believes she does it by spirits, why does she beg you to touch the table and sit round? She ought to believe that the spirits do all of themselves. They rap without your assistance; why not push? Attention to these Mediums shews a lamentable state of ignorance in those who are called educated. In fact, the grossest superstition pervades every part of the earth inhabited by man. Even the higher orders and the universities of our country are pervaded by it. Here are clergymen of the Church of England, educated at Cambridge, avowing their belief in all this raving; and one in Essex writing anonymously and most discreditably against those who are not so silly as himself. His friends also, not more enlightened than himself, have written as discreditably. But education in Great Britain is most unsound, or the visitation of the spirit-rapping and spirit-table-moving would have been repelled harmless. For, as the cholera and other epidemics find endless victims on entering districts where there is bad food, bad ventilation, and all unhealthiness: so does every absurdity of belief, religious, medical, or whatever else, find endless victims from the wretched and unhealthy mental state of a very large portion of society. Everything that we observe and experiment upon is nature. The President of the Royal Society in admitting Fellows tells them that the Society is for the investigation of *natural* knowledge. Of the supernatural we can observe and investigate nothing: all supernatural questions, such as living again after we are dead, can be determined by revelation only.*

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* Locke says, "There are many things wherein we have very imperfect notions, or none at all; and other things, of whose past, present, or future existence, by the actual use of our faculties, *we can have no knowledge:* these, as being beyond the discovery of our natural faculties, and above reason, are, when revealed, the proper matter of faith. Thus, that part of the angels rebelled against God, and thereby lost their first happy state, and that *the dead shall rise and live again:* these and the like, being beyond the discovery of reason, are

In examining nature, supernatural fancies are vile intruders, rejected by every person of information and common sense: and not admitted into any philosophical work. A chemist, an astronomer, a writer on mechanics, optics, or acoustics, would not think of introducing supernatural explanations and views into a treatise. If he did, his work would be rejected by any philosophical society to which he might present it, and he would be properly set down as a monomaniac. Many persons are so weak that they no sooner fancy a thing possible than they feel certain that it is a truth. Medical men act thus hourly, in giving medical opinions. When a belief thus formed is outrageous nonsense, and fixed and active, we call it monomania: and how many are thus weak, is proved by the experiments in what is absurdly called electro-biology, which is the artificial induction of monomania.

In truth, this delusion is impairing the intellect of many. Not merely females, but grown-up men, are yielding to it. One old gentleman who, it is said, was never satisfied of the existence of a personal God, and has spent a long life in unsuccessful schemes, and is so deaf that he cannot hear the raps distinctly, but trusts to others, is now satisfied that there is a personal God and a future state, because he is assured by the rappings made by the spirits of the father of our excellent Queen, Franklin, and Jefferson, that his schemes will, ere long, at length be adopted by mankind. The cunning Medium knows how to catch the poor old man. The spirits, however, do not seem to have improved his views of God. For, while he considers God to be a spirit, he considers that all spirits are but finely attenuated matter. Some have visits from the spirits of their fathers, children, husbands, wives, calling them up from their blissful abodes

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purely matters of faith, with which *reason has nothing directly to do.*"—Locke, *Essay on Human Understanding*, iv., ch. 18.

Bishop Watson says, "When I went to the University, I was of opinion, as most schoolboys are, that the soul was a substance distinct from the body, and that when a man died, he, in classical phrase, breathed out his soul, *animam expiravit*; that it then went I knew not whither, as it had come into the body, from I knew not where nor when, and had dwelt in the body during life, but in what part of the body it had dwelt I knew not."—"This notion of the soul was without doubt, the offspring of prejudice and ignorance."—"Believing as I do in the truth of the Christian religion, which teaches that men are accountable for their actions, I trouble not myself with dark disquisitions concerning necessity and liberty, matter and spirit; hoping as I do for eternal life through Jesus Christ, I am not disturbed at my inability clearly to convince myself that the soul is or is not a substance distinct from the body."—*Anecdotes of the Life of Bishop Watson*, p. 14, sqq.

at pleasure, and prevailing upon their aërial invisibilities to answer various questions, (often very silly,) and even to write them letters, off hand, in any room or shop or wherever else the Mediums may happen to be. I say Mediums, for the poor creatures have now taken their degrees as Mediums,—to be able to summon spirits,—conferred upon them by a keen speculating female, and are styled Mediums. I know of no communications yet made that are anything but namby pamby twaddle, or assertions unproved and often unprovable.

The mischief, if not corrected by contempt and ridicule, may be incalculable among us. Statistical accounts from the various lunatic asylums in America report 173 lunatics from this pestilent belief, and 17 suicides. One Medium has the Bible on the table and begins with a prayer; and declares all the spirits that obey the other and do her bidding are 'bad spirits;' while her own are 'good spirits.'

> "Damned spirits all,
> That in crossways and floods have burial."
> "They wilfully themselves exile from light,
> And must for aye consort with black-browed night:"
> "But *we* are spirits of another sort."
>
> *Midsummer Night's Dream.*

To the Mediums who declare that they bring spirits from other regions, the charge of wickedness, gross wickedness applies. They profess to believe that those spirits have been judged: that punishment is passed, and happiness is now their lot. And yet they scruple not to bring them away from their realms of happiness, in which, if the Medium believes her Bible, she must believe them enjoying the presence of God face to face and the communion of saints, to this wretched world, to rap on tables, and push tables, and utter all sorts of untruths and childish and ridiculous trash.

The folly and wickedness of the Medium and the dupes are equal.

JOHN ELLIOTSON.

X. *London Mesmeric Infirmary.*

THE Annual Meeting of the Mesmeric Infirmary of London was held at Willis's Rooms on Friday the 17th of June, at three o'clock. Baron de Goldsmid had promised to take the chair: but, not feeling very strong, he wrote the day before to say that he should attend, but feared his strength was not equal to the duties of chairman. The Earl Stanhope was

accordingly written to, and, though he had been at the trouble of taking the chair last year, he at once assented, and came to town in the morning expressly from his seat near Sevenoaks.

The large room down stairs was engaged, as unfortunately the very large room up stairs had been previously taken for the meeting, at the same hour, of the Society for the propagation of the Gospel in Foreign Parts. The room was crowded to excess, and between one and two hundred ladies and gentlemen could not find admission.

The following report of the committee was read by Dr. Elliotson :—

"Those who know the truth of mesmerism, and are anxious that its blessings should be spread far and wide, have greater reason than ever to rejoice. The steady advance which it has been making for fifteen years in this country, as a remedial agent, has at length established it among those facts which no person of common sense and information ventures to say that he doubts. Many still refuse to admit the possibility of clairvoyance and other phenomena termed *the higher:* but the conviction of the reality of its ordinary phenomena and of its utility in medicine is universal, and is freely confessed by all except those whose peculiar duty is to employ it hourly and proclaim its powers and importance boldly to the rest of mankind, and who, till lamentable experience proved this to be a mistake, were, as a matter of course, considered the best judges of its truth and value. The deadly opposition formerly offered to it has subsided into careful silence, interrupted by only occasional short expressions of vexation which our triumph must be expected to excite in men not endowed with more than mortal patience or that moral dignity which makes the relinquishment of error a satisfaction. The invariable ignoring by medical periodicals and treatises of the facts laid before the world every quarter, year after year, is really ludicrous. Not merely is no allusion made to the daily and acknowledged success of mesmerism in curing, retarding, and assuaging disease; but the mighty mass of surgical operations painlessly performed in India by that noble and intrepid man, Dr. Esdaile—many of them so gigantic as to have rarely been witnessed in this country, and equally grand with the Himalayha mountains themselves,—are most amusingly ignored. Upon the 28th of only last month, a medical practitioner of Salisbury, named Martin Coates, published a letter in the *Lancet* upon the administration of chloroform, and the following passage occurs in it :—

"This discovery was not an accident, but the direct result of experiment made by Dr. Simpson on himself and his two friends, Drs. Keith and Mathews Duncan (see Miller's *Principle of Surgery*, p. 757). I know of few more bold and heroic acts than that of these three gentlemen meeting together to try, by experiments on themselves, and at the risk of their lives, to discover an effectual means of rendering surgical operations painless; yet I cannot learn that one voice has been raised, calling upon either the profession or the public to express, by some testimonial, their gratitude for this brilliant and beneficent discovery. We have monuments raised to the dead; we have testimonials presented to political reformers, nay, even to the successful speculator; shall it be thought that we surgeons who, by this discovery are saved from the painful necessity of inflicting acute agony on our fellow-creatures, and that our patients who have had conferred upon them such an inestimable boon as exemption from pain during surgical operations, are alone destitute of gratitude? I confidently trust not. I firmly believe that were a subscription opened for the purpose of presenting to Dr. Simpson a substantial proof of our gratitude, every surgeon who has operated upon a patient to whom chloroform has been duly administered, and every living patient so operated upon, would come forward with donations consistent with their means, and that thus a splendid acknowledgment would be made as honourable to those who contribute as to this benefactor of his race.

"I shall not presume to attempt a commencement of such a weighty enterprize, lest from my incapacity and want of influence the cause might be injured. I throw out the suggestion in the hope that some eminent member of our profession will take up the matter and carry it to a successful conclusion."

"Not a word of allusion to mesmerism, which never destroys life as chloroform, though a blessing beyond price, every now and then does under the best management; sometimes killing on the spot, sometimes causing the patient to sink gradually as if he were dying of low fever, which in truth is then usually alleged to the friends to be the cause of death, in order that the credit of chloroform and of the medical attendants may be saved: and very frequently chloroform leaves behind it, for a shorter or longer period, headache, giddiness, confusion, impairment of memory, or even a degree of mental aberration. Not a word of allusion to those heroic men who in vain, for years, amidst obloquy and injury, urged upon their professional brethren the duty of preventing surgical agony, and not only pointed out a safe and pleasant method of preventing it in numerous cases, but set the example and gave the proof by performing hundreds of operations in the sweet mesmeric sleep, from which patients awake refreshed and strengthened, and by which they recover from the violence of the knife better than if they

have not been mesmerised. Not a word, therefore, of allusion to Dr. Esdaile, who stood alone in the East, defying all his medical assailants, till the non-medical public saw that he was right, and the Government of the country *declared* that he was right and rewarded him as he deserved.

"Since the last Annual Meeting we have had 22 new donors and 44 new annual subscribers. It is a striking circumstance that many of our donors and annual subscribers reside in distant parts of the kingdom, setting an example to the inhabitants of London, the indigent of which are the only poor who can be benefitted by us, since we do not receive in-patients and the poor cannot of course come up from the country and take lodgings in town in order to attend at our Institution. This shews a real heartiness in the cause and is beyond all praise. Although they can procure no gratuitous mesmerism for their poor neighbours, they resolve that the sick poor who live away from them, but near a source of mesmerism, shall not find that source dry up. They know likewise, that, in supporting this Institution, they are advancing the great mesmeric cause all over the earth, because this Institution is a grand standing fact, and the phenomena and cures which are going on in it every day, and are accessible to the inspection of every body, are solid truths in nature and art, and cannot be overthrown by the most numerous and deadly foes.

"We have, within these few weeks, established, with great success, a new department in the Institution. Mesmerism may be perfectly costless or very expensive. If a patient has a friend who is able by constitution, and willing from kindness, to mesmerise him, it is altogether inexpensive. If he has not, but pays for its administration, the cost is not inconsiderable at the end of some weeks or months—half a guinea a week at least, and a guinea or more if much above half an hour is occupied in it or the mesmeriser lives at some distance. Many patients are unable to pay half a guinea a week, and yet do not feel justified in receiving as a charity what is intended for the poor. We therefore supply mesmerism to such persons for five shillings a week; and find that a very large number will gladly avail themselves of this advantage. Separate apartments are provided for them.

"And here we cannot refrain from proudly,—let the word rather be thankfully,—remarking, that the shocking language used by the fierce adversaries of mesmerism, in regard to its immoral tendency and the depravity of mesmerisers and patients, is shewn by our Institution to be an utter slander.

For three years and a half has mesmerism been carried on regularly with females and children in their apartments, and with males in theirs, from 10 o'clock in the morning till 4 in the afternoon; and invariably conducted on the part both of patients and mesmerisers with the utmost propriety. No accusation has even been breathed, although our visitors are very numerous, and come from all parts of the country and the world. If a shadow of evil had been visible among us, certain journals would have discovered it and made the most of it. On the contrary, all the ladies and gentlemen who visit the house are delighted with what they see, and in frequent instances are moved to make donations or become subscribers.

"To the ladies' committee our obligation is unbounded. They meet weekly as we do; and one or more of their number looks in every day. Thus most useful suggestions are continually made to us; things noticed and arrangements effected for which gentlemen are ill qualified; and a propriety, a respectability, we might almost say a holiness, imparted to the place. To one of them we are indebted for an incomparable matron, who, like the secretary and his family, resides in the house; and to two of them for the establishment of domestic donation boxes, into which small sums may be dropped by those who cannot afford to place their names in the list of donors or subscribers, and yet are anxious, like the poor widow, to bestow their mites*—the whole that they can give. These boxes have not been long in operation, and yet, when called in before the late audit, furnished a sum important to us. Many individuals took a box into their houses who were themselves unable to become subscribers. The ladies who suggested this plan, so common among religious societies, supplied all the boxes at their own cost, and took upon themselves the whole trouble and expense of distributing them and then of recalling them for the audit.

"We beg to return our warmest thanks to them and all the members of the ladies' committee, and to those benevolent friends who placed the donation boxes in their houses, and to the unseen donors; and we trust that they again, and also others, will render the same service to the charity.

"The last General Meeting empowered us 'to make arrangements for taking another house for the purposes of the

* It is a touching fact, exemplifying the well-known charitable feelings of the poor, that in these boxes were 35 farthings, and £4 17s. 6d. in pence and halfpence.—*Zoist.*

Institution, or for renewing their interest in the late house, as we should consider expedient.' We accordingly took a lease of a spacious and handsome house, situated in the corner of Fitzroy Square and Grafton Street, No. 1A, at the moderate rent of £110 per annum, that had been vacant for two years, and was to be hired so cheaply on account of the difficulty of letting so good a house in such a neighbourhood. We did not imagine that any inhabitant of the Square would think of objecting to our presence, since we receive no in-patients, nor cases of infectious or acute disease; since we never can have a crowd at the door, because all the patients do not attend at one hour, but succeed each other every half-hour, entering the moment they arrive and leaving as soon as their mesmerisation is over, and after all for six hours only in the twenty-four; since nobody could discover any difference between our house and the other houses of the place, or that it was a charitable institution; and since our door is not in the Square, but some yards down Grafton Street: above all, we conceived that we should not be objected to when we beheld the opposite house in the Square, in the corresponding corner, having a side door and a visible and open surgery, or doctor's shop, in the corresponding street, into which poor people enter at pleasure *all day* to procure a bottle of physic or have their sores dressed, whereas we give no physic, dress no sores, nor present any visible difference from the rest of the Square.*

"Some of the higher inhabitants of the Square have withdrawn all opposition on observing these circumstances, and on learning, by themselves visiting or from the visits of their friends, that all within as well as without is simplicity, order, quiet, and propriety, fit for any lady, old or young, to witness at all the six hours of attendance. But the majority are inexorable, notwithstanding that in such squares as St. James's Square, Hanover Square, and Cavendish Square, the residences of the nobility, from barons to dukes, public institutions are allowed, and club houses, and in one of them positively shops. The inhabitants of Fitzroy Square resolve that we shall not be near them; and we are looking for another house to prevent the expense of litigation: although, had we more funds, we could, according to a very high opinion, resist with little doubt of success. We had hoped

* The proprietor, we hear, is the most active of the opponents to the Infirmary, though Dr. Elliotson has attended his family and him as a friend whenever called upon: and Mr. Capern, the secretary, went a mile and a half times without number as a friend to mesmerise this gentleman's father.—*Zoist.*

that an institution not merely in every respect perfectly unobjectionable, but fraught with blessings to the afflicted, would have been a source of pleasure and satisfaction to the inhabitants.

"Since the last Annual Meeting we have treated 298 patients, 41 being still under treatment, so that the amount of mesmerism performed daily by the three male mesmerisers and the two female mesmerisers is considerable.

"Thirty-nine have not improved. But it is to be remembered that many patients soon cease to attend, some indeed after a very few, even after two or three, visits: some disappointed at not being cured of long-standing diseases off hand at once, as if by magic; some living at too great distance to attend with regularity.

"Fifty-seven have been improved: many of them enabled to return to their work, and therefore unwilling to refrain longer from getting their livelihood and to continue with us till their cure is completed.

"Sixty-one have been cured,—many labouring under rheumatism and neuralgic affections cured in from one to three visits. Many of the diseases cured were intense and of long standing, and had been treated in vain at the great hospitals and dispensaries, and by the most eminent medical men, metropolitan and provincial.

"Eleven of these remarkable cures are recorded in the last number of *The Zoist*, most of them testified by the patients themselves. We will consequently do no more than refer to them: but the Meeting will not object to our relating a few others with the view of displaying the powers of mesmerism.

"Thomas Roberts, 64 years of age, living at No. 34, Mortimer Street, Cavendish Square, found himself rather deaf about 30 years ago. Sounds were confused, and at length he had noises in his ears like the ringing of bells, water falls, and the rolling of carriages, especially at night when his head was on the pillow. He then entirely lost the hearing of the right ear, and frequently was attacked by pain and giddiness. For three months he had unusual pain in the left ear: matter was discharged from both, and he then became totally deaf in both and so remained, still constantly suffering pain and noises. In that state he began to attend at the Infirmary in February, always accompanied by his wife, on account of the danger of being run over in crossing the streets. But in a short time this precaution was no longer necessary: at the sixth sitting he had less noise in his head,

and was well enough to leave us on the 6th of June. Though for 30 years he could not hear with his right ear, even when a trumpet was applied to it, he now can, and he has resumed his occupation as a coachman, which for some time he had been obliged to give up. In the treatment passes were made down the head over the ears, and these were breathed into. Mesmerised water was dropped into them, and cotton saturated with mesmerised oil put into them. Sleep was never induced; but composure.

"Mrs. Workman, of No. 51, Upper Marsh, Lambeth, six years ago had an ulcerated sore throat, followed by deafness, chiefly of the right ear, and constant noises. She was treated without any advantage by Mr. Curtis, by a practitioner in Tottenham Court Road, by Mr. Francis, by Baron Mackenzie, and at length was more deaf than ever. Her hearing was presumed by her friends and herself to be unlikely ever to return. She had been deluged with medicines. The late Lord Ducie sent her to us. She was able to attend with less regularity than was desirable; yet when she left us she considered herself cured. Such was her susceptibility that she could be sent to sleep in half a minute. Breathing into her ear through a tube seemed to do her great good. Passes over her head always occasioned a profuse perspiration. When she first came she could not hear a vehicle going along the street, but when she left us she could join in conversation.

"Mary Wyatt, No. 14, King's Mews, Gray's-Inn Lane, had suffered agonizing tic douloureux for seven years. The pain, she said, was maddening, and scarcely left her day or night. She had been under Dr. Budd and Mr. Huxtable of Barnstaple, Mr. Thomas Lane, Mr. Joice, and Dr. Newbold, with but short relief. She had taken arsenic, quinine, belladonna, and carbonate of iron. External applications never relieved her. The paroxysms which we witnessed were horrible. She began mesmerism on the 18th of August, and left us cured in the latter part of January. Sleep was never induced. Passes without contact were always made over the affected part. She called at the Infirmary last month to say that she had experienced no relapse.

"The following was another case of nervous affection, but of a different form,—one of the most dreadful instances of distraction that we ever witnessed. We will give it in the patient's own words.

"William Estlob, 41 years of age, a tailor, was admitted on the 1st of last December. For the previous six years, thoughts, having no relation to his occupation, were incessantly in his mind. They long were of a pleasant and bene-

volent character, but for the last few months, he having become debilitated, they changed, and he grew incensed with his most intimate friends, although he did not betray his feelings. He now had intense head-aches, lasting frequently for two days together, and he obtained ease only by wrapping his head in wet cloths or immersing it in cold water. The head-aches always left him greatly exhausted, and in a state of irritability approaching to madness. His strength was impaired, and for the last four years an eruption had disfigured his face unrelieved by any measures which Mr. Erasmus Wilson prescribed. On the day of his admission this eruption was very considerable, and his despair and distraction came on in paroxysms which were absolutely horrifying. On the third day of his attendance—a Saturday—a very severe head-ache had begun and prevented him from going to his work: but, after he was mesmerised at the Infirmary at two o'clock, it was completely subdued, and he was able to go to his work and continue without leaving off till eleven o'clock at night. He attended daily for three weeks and more or less for ten weeks; forty-three times altogether; and sleep was never induced. His cure was complete, and he remains a healthy and happy man to this hour. Previously to leaving us he presented himself before the committee with expressions of the warmest gratitude; as patients, we rejoice to say, do every week. No fresh eruption had taken place in his face since mesmerism was begun, although before that time it was coming out every day.

"And this leads us to trouble the Meeting with an account of the cure of another case of very severe cutaneous disease.

"Henry Thomas Brown, a cabinet maker, living at No. 55, Hatfield Street, had been suffering from the skin disease called psoriasis for eight years. The soreness was at times such as to prevent him from working. His hands were swollen and the palms very much cracked. He had been under different surgeons and at the Institution for Diseases of the Skin in Earl Street,* without any benefit, and become very nervous, in consequence, he believed, of taking powerful medicines, though he always had been rather of a nervous habit. He was incapacitated from many kinds of his labour, and could perform none without gloves. He began to be mesmerised

* We have learnt that a certain skin-doctor in connection with this charity, whose wife has consulted Dr. Elliotson, as a friend, and been mesmerised, did, on hearing from a gentleman that he had brought up his son with diseased lungs from the country at the desire of two medical men to consult Dr. Elliotson, attempt to dissuade the gentleman from consulting Dr. Elliotson, saying, "He will not do; he's a mesmeriser."—*Zoist.*

on the 3rd of February, and on the 19th of April he was cured and ceased to attend. He called upon us on the 23rd of May to say that his cutaneous disease still remained cured.

"To give another proof that the sanative power of mesmerism is by no means limited to functional and nervous affections, we may briefly mention the cure of a considerable ovarian enlargement of the body.

"Mrs. Sarah Powell, living at No. 92, Regent Street, Vauxhall-bridge Road, was admitted on the 14th of January, 1852, with an ovarian tumor, pronounced to be such by the medical members of the committee and by her former medical attendants. It had commenced in 1850, and she, mistaking its nature, engaged an accoucheur in the October of that year. As it continued to increase, she became a patient at the Homœopathic Institution under Mr. Dudgeon: but it still enlarged. We mesmerised her daily, and she decreased fifteen inches in circumference in eight months: and now, after visiting us for a year and a half, considers herself cured. She was inspected by Dr. Symes at the meeting of the committee last week.

"We never aim at what are termed the phenomena of mesmerism, and carefully avoid all circumstances which are calculated to excite the imagination. Following the sound advice given by Mr. Monckton Milnes at our first general meeting in 1850, we never permit or encourage anything like an exhibition of the wonders of mesmerism. But phenomena sometimes present themselves spontaneously, and the following case exhibits a most satisfactory cure and that not uncommon variety of clairvoyance consisting of an intuitive impression in the patient as to the course of the disease.

"A young woman, named Mary Ann Mallows, and living at No. 13, Aldenham Terrace, Old St. Pancras Road, applied on the 19th of last January on account of epileptic fits. From her childhood she had suffered greatly in her head and stomach. Two years before her application to us, she had severe pain in the lower part of her back for a month, and then while washing had an epileptic fit which lasted for three hours. In six months she had a second, more violent. In three months a third; and from that period two, three, or four every week. Before coming to us, she was mesmerised by Mr. Barth. The first mesmerisation at the Infirmary produced mesmeric coma. On the sixth this changed to sleep-waking, and she talked. She predicted by an intuitive feeling that her next fit would happen on the following evening at six o'clock. Her prediction was fulfilled. The next day she predicted in her sleep-waking that she should have

four more attacks, naming the day and hour of the first; and she named the day and hour of each in her sleep-waking after the fit previously predicted had taken place. All her predictions were fulfilled. When prognosticating the last fit, she said it would be very violent. It occurred on the 23rd of March at the very hour she had foretold, and its violence was awful, requiring four persons during the greater part of the time to prevent her from injuring herself. Immediately after it was over, she was mesmerised into sleep-waking, and declared she should never have another fit. Nor has she. Her mother called at the Infirmary this present month and said that she had suffered no attack since the 22nd of March.

"Besides treating diseases, our secretary gives instructions to all who wish to learn the method of mesmerising their friends: and persons, satisfactorily recommended, are allowed to attend and mesmerise under the direction and supervision of the secretary or matron.

"The accounts have been very kindly and carefully audited by Mr. W. Watkiss Lloyd and Mr. George S. Nottage (their statement will be found at p. 214).

"We are satisfied that not a sixpence is expended unnecessarily.

"The Meeting is no doubt apprised of the death of our excellent president, the Earl of Ducie. He was very active in the foundation of the Society: allowed all the original meetings to take place at his house in Belgrave Square, and, as well as his brother-in-law, Mr. Langston, member for the City of Oxford, and the Baron de Goldsmid and Palmeira, presented us at the very commencement of our attempt with a hundred pounds. We are anxious to recommend as his successor the Archbishop of Dublin—a very remarkable man—great in every particular, intellectual and moral—a model to clergymen and legislators—an ardent, open, and unreserved friend to mesmerism, and whose wife, as all English mesmerists are aware, effected one of the most splendid cures in the whole history of medicine—the cure of a blindness which had existed for six and twenty years. The case is detailed in the Twenty-fifth Number of *The Zoist*."

It was then moved by Professor De Morgan, of University College, London, and seconded by Mr. H. U. Janson, of Exeter,—That the report be received and adopted.

By the Rev. George Sandby, and seconded by Mr.

Ashurst Majendie,—That His Grace the Archbishop of Dublin be elected President of the Institution.

By Mr. George Moffat, M.P, and seconded by Captain the Hon. W. F. Scarlett,—That Dr. Gregory, Professor of Chemistry in the University of Edinburgh, be elected a Vice-President of the Institution.

By Mr. Monckton Milnes, M.P., and seconded by Mr. Colly Grattan,—That Mr. Goff and Mr. Kiste be elected members of the Committee in the room of Mr. Briggs and Mr. Wilberforce; the former gentleman resigning from increasing infirmities, after most efficient support to the charity from its commencement, and Mr. Wilberforce not having yet been able to attend; and that Captain the Hon. W. F. Scarlett and Dr. Symes, who go out by rotation, be reëlected.

By Mr. Frederick Mouat,* surgeon to the 9th regiment of Infantry, and seconded by Mr. G. S. Nottage,—That the cordial thanks of the Meeting be given to the Ladies' Committee for their constant and important services, and that the Lady Mary Bentinck,† the Dowager Lady Molesworth, Mrs. Whateley—the wife of the Archbishop of Dublin, Mrs. Sandby, and Miss Goldsmid, who have kindly consented to join the Ladies' Committee, be added to Mrs. De Morgan, Mrs. Symes, Mrs. Herring, Miss Brine, Miss Emma Brine, Miss Wallace, and Miss Swanneck.

By Colonel Bagnold, and seconded by Lieut.-Colonel Topham, of Her Majesty's Body Guard,—That the Committee be empowered to make what arrangements they think fit in regard to the house of the Institution.

All these resolutions were carried unanimously: and then, on the motion of Dr. Symes, a vote of thanks to Earl Stanhope for his kindness in coming up to London to take the chair, and his conduct in it.

Before this was carried, Mr. Jefferys and Capt. Hudson of Liverpool addressed the Meeting most energetically upon

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* This gentleman bore his testimony to the truth of all the phenomena of the Okeys, whom he had attentively watched during the whole of their residence in University College Hospital. He considered it the height of absurdity to entertain a doubt upon the subject, and declared that from that time, now fifteen years ago, he had been a firm advocate of mesmerism. See this gentleman's remarks in a late No.—*Zoist*.

† To the Lady Mary Bentinck England is indebted for the first great painless surgical operation—the amputation of a leg in the mesmeric trance, and the report of which created such a hurricane in the Medical and Chirurgical Society.—*Zoist*.

the mighty remedial powers of mesmerism, as manifested in their own experience, urging upon all to employ it and advocate its employment in the treatment of disease. Captain Hudson is the great missionary of mesmerism in the North of England, and by his cures and his lectures beats hosts of our opponents, and gathers supporters from all classes, especially among the clergy, and not a few from the medical profession. He has given 110 lectures in the present year in some of the principal towns of Lancashire. Last Tuesday evening he finished a course of 42 lectures in Ashton and Staleybridge. One man who had lost the use of both his arms for two years, lifted them up in the presence of the audience, and thanked God that he had got the use of them again by mesmerism; another person, who had been afflicted with fits for nine years, was put into the mesmeric trance four months ago, and had not had a fit during that time; a boy, who could not utter his own name (from impediment in his speech) before he was mesmerised, can now speak plain: several others who were present had received benefit during his stay in the towns. On one occasion he met with a young female who was walking home lame and in much pain. After speaking to her about the cause of all this, he paid her a visit at her mother's house; and found her mother about 70 years of age, who understood nothing about mesmerism. They allowed him to try to do her good. He presently put her to sleep. Her mother thought she had fainted. But he began to sing a hymn, and the girl sang too. This alarmed the mother. He made the girl's leg quite straight, and got her to walk well in her sleep, to his own utter astonishment. At Preston, Lancashire, he operated on four persons: in the mesmeric state three of them heard him speak, although the whole four were born deaf and dumb, and one spoke twice. The good cause, he added, is spreading rapidly in nearly all the principal towns of Lancashire, among rich and poor.

Dr. *The Treasurer in account with the London Mesmeric Infirmary.* Cr.

1852.		£	s.	d.
June 11.	To Balance at Union Bank	394	2	10
1853.				
June 15.	To Annual Subscriptions	212 15 11		
	Donations	125 2 6		
	Ditto per Boxes	27 13 3		
	Sale of Crystals	1 5 0		
		366	16	8
	Rents per Mr. Baume's gift	32	1	3
	Payments of some Patients	8	9	2
	Interest :—			
	On Exchequer Bills	11 0 10		
	Per Bankers	3 2 8		
		14	3	6
		£815	13	5

1853.		£	s.	d.
June 15.	By Salaries of Secretary and Mesmerisers	250	0	6
	Rent	85	0	0
	Rates and Taxes	26	9	9
	Expenses of Removal, Fittings, and House Expenses	50	3	11
	Stationery, Printing, and Advertisements	21	16	4
	Law Expenses on Lease	11	0	0
	Furniture	23	15	2
	Balance at Union Bank	347	7	9
		£815	13	5

1853.				
June 15.	To Balance at Union Bank	347	7	9
	Five Exchequer Bills	506	9	11

William Watkiss Lloyd, George S. Nottage, } *Auditors.*

XI. *The omission of important Facts from an American Document.*

We have perused the Report of the Select Committee appointed by the United States Government, "to which were referred the various memorials in regard to the discovery of the means by which the human body is rendered uniformly and safely insensible to pain under surgical operations."

The first line in the Report is, "That in the opinion of the Committee such a discovery has been made." Seven years after the announcement of the discovery, and when the whole civilized world has appropriated it, a committee of American statesmen gravely assert that in their opinion such a discovery has been made! They are equally clear that one of three citizens of the United States is entitled to the credit and honour of the discovery, but the Committee is not unanimous, and therefore the Committee is of opinion "that this point should not be settled by Congress without a judicial inquiry." We shall see presently that there are other points concerning which there seems to be great unanimity of opinion. The object of the Committee was to decide who discovered the method of producing anæsthesia by means of ether, so that Congress might bestow a reward of 100,000 dollars. We find in the first page—the Report consists of only two pages—the following statement, and we are compelled to remark that we did expect even an American state document would contain some recognition of the truth:—

"The means of safely producing insensibility to pain in surgical and kindred operations have been the great desideratum in the curative art from the earliest period of medical science, and have been zealously sought for during a period of more than a thousand years. At various periods, and in various ages, hope has been excited in the human breast that this great agent had been found; but all proved delusive, and hope as often died away, *until the discovery now under consideration burst upon the world from our own country and in our own day.* Then, and not till then, was the time-cherished hope realized that the knife would lose its sting, and that blood might follow its edge without pain."

We know that the great majority of the members of the medical profession are very ignorant of the practice of mesmerism, and that a large number have never heard, or, if they have heard, do not believe, that surgical operations have been performed without pain in the mesmeric state. Only a few days ago we met with an instance of a medical man who had never heard that an operation had been performed without pain under mesmeric influence. His journal had not

chronicled the fact, and he, not being a reading man and not gleaning his information from a variety of sources, naturally concluded that his journal would have informed him of such an important event. Alas! on such *trivial* matters English medical journals and American state documents are equally silent. It is not in these repositories that we are to look for information, or even a chronicle of the most important facts bearing on the subject under discussion.

It is most extraordinary that the authors of a Report presented to the Senate of the United States should not even mention the fact that, FOUR YEARS previous to the experiments with ether, *eight* legs had been amputated and other surgical operations performed under the mesmeric influence, and that it was these important facts, and the difficulty which has almost always been experienced in inducing mesmeric anæsthesia, which directed the attention of American physicians to the discovery of some other means by which to accomplish the required end. So decidedly is this the fact, that we find, on perusing the remarks appended to this Report, an American physician in 1845 actually adding to the mesmeric process the influence of nitrous oxide gas. It is characteristic of the "go-a-head" and "annexation" system so prevalent amongst our brethren on the other side of the Atlantic, to claim for themselves, and if possible to take possession of, all credit for this great improvement in modern surgery. But we shall not permit such departure from truth to pass unnoticed. What says the Report?—"All proved delusive, and hope as often died away, until the discovery now under consideration *burst upon the world from our own country and in our own day.*" Surely it is the duty of gentlemen appointed to investigate and report upon a subject to give facts. What then are the facts? Let us give a short *resumé* of the operations performed in the mesmeric sleep previous to the discovery that ether would produce the required anæsthesia.

In 1829. Madame Plantin had her breast removed by M. Cloquet.

In 1837. There were several teeth extracted *in Providence, America,* by Mr. Estin.

In 1838. Elizabeth Okey had a seton inserted in her neck at the University College Hospital, under the care of Dr. Elliotson.

In August, 1842. The tendons at the back of the knee-joint were divided by Dr. Engledue.

In October, 1842. The leg of James Wombell was amputated by Mr. Ward, at Wellow, Nottingham.
In 1844. The finger of John Marrion, by Mr. Dunn, of Wolverhampton.
In August, 1844. The leg of Mary Ann Lakin, by Mr. Tosswill, at Leicester.
In November, 1844. The leg of Elizabeth ——, by Mr. Paget, at Leicester.
In May, 1845. The arm of Mrs. Northway, at Torquay, by Mr. Jolly.
In June, 1845. The leg of Thomas Dysart, by Dr. Fenton, at Alyth, Perthshire.
In October, 1845. The leg of Mdlle. D'Albanet, at Cherbourg, France.
In August, 1846. The leg of John Pepperal, at Bridgwater, by Mr. King.

IN AMERICA.

In July, 1843. Removal of polypus from nose, at Boston, U.S., by Dr. Wheelock.
In May, 1844. Removal of tumor, by Professor Ackley, at the Cleveland Medical College, America.
In January, 1845. Removal of tumor at New York, by Dr. Bodinier.
In January, 1845. Removal of breast from Mrs. Clarke, by Dr. Ducas, Professor, &c., Georgia, U.S.
In 1845. Removal of cancer from breast, by Dr. Ducas, Professor, &c., Georgia, U.S.
In March, 1846. Removal of tumor at Bermuda, by Dr. Cotes.
In May, 1846. Removal of large tumor at New York, by Dr. Bostwick.

So that, to cast aside all minor operations, we have a list of *eight* amputations performed in England in the mesmeric sleep—a list of *four* tumors removed in America—two breasts removed in America, and one polypus from the nose in America. Some of the latter operations were performed at medical colleges and by professors of surgery at the said colleges. And let it be carefully noted, that all this was accomplished previous to the discovery that the inhalation of ether would produce anæsthesia. This discovery was made in 1846. We ask what stimulated men to look for some other means to produce insensibility to pain, if the facts just related did not? What truth is there, then, in such language as this? "But all proved *delusive*, and hope as often died away, until

the discovery now under consideration burst upon the world from *our own country and in our own day.*"

All efforts to produce safe anæsthesia failed till mesmeric investigators proved that this great desideratum could be obtained by mesmeric influence. The fact, that most frequently considerable time was required and that very often the insensibility to pain could not be produced, directed the attention of some medical men in America to the inhalation of nitrous oxide gas and ether. The inhalation of ether has been superseded by the inhalation of chloroform. In India Dr. Esdaile used neither the one nor the other, but he produced insensibility in the natives by means of mesmerism. And we predict that in Europe and America chloroform and ether will be superseded by mesmerism in the great majority of surgical cases, when we have discovered some method of producing the required insensibility in European organisms with as great rapidity as Dr. Esdaile and his assistants did in the natives of India. We do not despair. We believe this will be accomplished, and we shall then supersede the use of a drug, which is frequently hurtful and sometimes fatal, by a health-restoring, anæsthetic power inherent in man, always at hand and never injurious. Let us chronicle this prophecy. July 1st, 1853.

But if we were astonished at the language of the Report, we were still more so when we read the following paragraph. To the Report the Chairman has appended a brief historical retrospect of the means which have been used at various times for the purpose of producing either complete or partial anæsthesia. In this historical department the author seems to have taken the pamphlet published by Dr. Simpson, of Edinburgh, some years ago, as his text-book. Dr. Simpson, our readers will remember, published a pamphlet on anæsthesia, and ignored mesmerism altogether. This was not from ignorance, because he had been engaged for a long time in the investigation of mesmeric phenomena, and was accustomed to invite his medical brethren to his house to witness his experiments. The pamphlet was published to illustrate the importance of chloroform, and of course did not appear till the operations we have chronicled had been performed. He professed to furnish an account of all known attempts to produce anæsthesia,—why he failed to include mesmerism, and the list of important surgical operations, we must leave him as an honest man to tell his professional brethren at some future day.

"There is no doubt whatever that in slight operations, such as those of dentistry, that the mentally prepared patient, who has a right understanding with the operator, can by the force of imagina-

tion and a strong effort of the will greatly modify the proper physical effect of an agent such as this (nitrous oxide). Hence the undoubted success in many cases of *mesmerism* when used alone in surgical operations."

Really this is quite worthy of the magnates who pretended to discuss the subject at the Medico-Chirurgical Society some years ago. Slight operations indeed! Under the influence of mesmeric sleep operations have been performed which no European or American surgeon has yet attempted with success. Dr. Esdaile unquestionably stands forth as the only surgeon who has performed such a number of extraordinary surgical operations as cast into the shade all his compeers. The "right understanding" the poor Hindoos had with Dr. Esdaile consisted in their witnessing those who had been afflicted with enormous tumors which rendered their lives a burthen come forth from the hospital relieved from them, and by a process which they could not comprehend. They knew the simple fact that they did not suffer, for they knew not when the operation was performed. These operations consisted of some of the most appalling in the annals of surgery, and we speak practically when we say, that we do not believe a similar result will be obtained, as regards the absence of fatal cases, by the inhalation of ether or chloroform. The one is *a health-restoring power*, the other is a drug—one enables the nervous system to sustain great shocks without leaving any injurious consequences, the other produces a state of profound stupor, requiring great care during its exhibition, and even, with the greatest care, frequently fatal. The rapid production of mesmeric anæsthesia is the great desideratum of the day, and we believe, that we are not far from reaching the goal to which all benevolent men have so long anxiously directed their attention.

BOOKS RECEIVED.

Practical Instructions in Table Moving, with Physical Demonstrations. By a PHYSICIAN. With a plate. Baillière, London, 1853.

We turned to this little pamphlet with interest, in the expectation of receiving some information upon the subject of which it treats: but great was our surprise upon discovering that it is almost, word for word, a translation from Dr. Felix Roubaud's French work, to which Mr. Sandby's letter has directed our attention. Of course the arguments and the facts are not weakened by the process of being transferred into another tongue: yet we think it would have been a more becoming, if not a more honest act, on the part of the translator, if he had openly avowed his obligations to Dr. Roubaud. But the name of this latter gentleman

is studiously avoided in every page: not a hint is given, either in the Preface or in the body of the work, that it is not an original treatise, and that that, which we cannot help regarding as a fraud, has been passed off upon the publisher and upon the public. Even the plate is a servile copy of that which appears in the original work, except that French faces are made to look more like English ones. The few original observations that are introduced, to give a colour as it were to its authenticity,—for instance, allusion to Dr. Ashburner's translation of Reichenbach (published, be it remembered, by Mr. Baillière), only add to the deception. One line would have been sufficient to represent the real state of the case; and its omission on the part of the translator is a proceeding so disingenuous that we have felt it to be our duty to make the transaction public.

A Review of the Spiritual Manifestations. Read before the Congregational Association of New York and Brockley, of the first Congregational Church, Newark, New Jersey. By CHARLES BEECHER, Pastor. London, 1853.

This little book was read before the Congregational Association of New York, and published in accordance with the usages of the Society. It contains a compendium of almost every opinion that has been uttered or printed in regard to the origin, nature, character and claims of these very marvellous developments. The spiritual or materialistic character of the rappings,—we ought to say, their pneumatic or apneumatic character—is given, with the arguments and opinions that have been offered in favour of each hypothesis: Scripture is quoted at length; to say nothing of Pagan and Deistical writers. The author, at any rate, must have read much on the subject, and has certainly compressed his various readings into a short compass: but what his own opinions are, it might be difficult to guess. He finds great virtue in "*If.*" *If* the "Pneumatic movement" be an error, it is, he says, "an *honest* error," (we are not quite so certain of this on all occasions,) *if* it be a delusion, it is a strong delusion: and *if* it be true—why that is a point "which time will shew, and upon which every man must judge for himself." In plain words, though this little treatise may exhibit the results of considerable study, there is not one single sentence in it upon which it is necessary to waste the time of our readers.

Midsummer Morning's Dream. By Mr. F. STARR, of Norwich.

The author has made it a somewhat delicate task for us to give an opinion upon this book, inasmuch as he tells us in his preface, that time can alone discover whether his readers will regard the stirring incidents contained therein as "LUNACY OR REVELATION." This, it will be admitted, is a startling alternative to begin with, and certainly narrows the field of critical examination. Why the author sent a copy to *The Zoist* we are at a loss to discover; for, assuredly, its subject-matter does not fall much within our province. If we rightly understand this "*Midsummer Morning's Dream*," it purports to be another revelation; and, verily, revelations of late have been as "plentiful as blackberries." We have had the revelations of Swedenborg, the revelations of Mormonism, the revelations of Cahagnet's lucid damsels, the revelations of the two American girls, the recent revelations in Queen Anne Street, by which Mr. Owen and other learned pundits have been converted from Atheism to Deism; and here we have before us the revelations of Mr. F. Starr, of Norwich; and whether these latter ones proceed "from the finger of God, or the hand of man," is the point which we are especially required to consider.

Mr. Starr writes occasionally with spirit, and is probably an amusing fellow-traveller. It would seem that he is a commercial gentleman; and that his employee's business carried him to Paris in 1850. Of this trip he gives us sundry incidents, as well as the history of some odd adventures that befel him in London and its environs on his way back. Among other places that he visited was the park at Greenwich; there, overcome with fatigue, he fell asleep, and "dreamed a dream." This dream, it would appear, lasted *six weeks*; at least, so we understand it: and the communications which were received during its prolongation form the staple of the revelations.

There is a melancholy clue to the whole book: at p. 6 we learn, that Mr. S. had been sometime back "released from a lunatic asylum," and though there is "much method" in what he tells us, and though in many respects he does not write unpleasantly, but rather with talent, still we fear that the explanation of the dream is too obvious to need discussion.

But we cannot avoid taking the opportunity of making one remark. It would appear, that this unfortunate gentleman was at one period under the care of an eminent practitioner in the City of Norwich, who is notorious for the abuse with which he everywhere bespatters mesmerisers and mesmerism. Norwich, it is well known, has greatly fallen from the high position which it once occupied in the medico-chirurgical world: inferior men are now the leading members of the profession in that place; but, as we have been informed, if there be a superior man among them, it is the gentleman under whose care Mr. Starr was placed. Admirable as an operator, correct in his diagnosis, and judicious in his treatment, of disease, Mr. —— has the confidence of a large body of patients; but he has committed himself egregiously on the subject of mesmerism, and acted in a manner unworthy of his ability. Mesmerism, which he thus vituperates, he has probably never studied: but if he had studied it carefully, and if especially he had seen its salutary effects in *cerebral disorders*, and moreover if he had himself tested its powers with certain of his own patients, this unfortunate author, whose work is before us, would in all probability have quitted his house of reception with his brain in a far healthier condition, and we ourselves should have been spared the pain of passing an opinion upon so strange a work as a "*Midsummer Morning's Dream.*

Mesmerism solved. Divested of mystery, and shewn to be simply an overlooked branch of Medical Science, to be received and practised as an auxiliary by the Medical Professors and Heads of Families for curative purposes. Jones. London, 1853.

What is Mesmerism? The question answered by a Mesmeric Practitioner; or, Mesmerism not a Miracle. An Attempt to shew that Mesmeric Phenomena and Mesmeric Cures are not supernatural. To which is appended useful remarks and hints for Sufferers who are trying Mesmerism for a cure. By George Barth. London, 1853.

Spirit; or the Hebrew terms Ruach and Neshamah, and the Greek term Pneuma. By William Glen Moncrieff. Edinburgh and London.

Many dreamers would be enlightened by the study of this work; and we strongly recommend the purchase of it.

Observations on the Nature and Treatment of the Asiatic Cholera. By William Stevens, M.D., D.C.L., Oxon. London, 1853.

Notes and Narratives of a Six Years' Mission among the Dens of London. By R. W. Vanderkiste, late London Missionary. Third Edition. London, 1853.

Observations on the treatment of Stricture of the Urethra, by an improved Instrument, with some remarks on Mesmerism. By John Battishill Parker, M.R.C.S.L. Exeter, 1853.

The world may here learn that, however conscientiously Mr. Parker has given his patients the benefit of mesmerism, he has not neglected the cultivation of other medical improvements. Probably his general industry has been increased by the intellectual habits to which mesmerism leads.

The Christian Examiner and Bible Advocate. No. VI. 1853.

The Exposition of Life and Immortality. Edinburgh. April, 1853.

El Heraldo Medico. Madrid, June 2nd, 1853.

The Ladies' Own Journal and Miscellany for May 28th, 1853.

We are as much disgusted as Mr. Gray can be.

Table Moving; its Causes and Phenomena: with Directions how to Experiment. Wesley, London, 1853. Twenty-first Thousand.

This little work, which is having a most extensive run, contains many interesting details of the subject on which it treats, embracing the best authenticated accounts of experiments already performed, with engraved illustrations of four or five different modes of operating.

Spirit Rappings. By One who has tried the Spirits. Ninth Edition.

This deserves to be read by all.

NOTICES TO CORRESPONDENTS.

The "Leader" and Dr. Ashburner.—QUIDNUNC is informed that although the *Leader* speaks of Dr. Ashburner's known connection with *The Zoist*, this is entirely a mistake. That gentleman never was in any way connected with *The Zoist*. He communicated a few articles with his name: but that is all. It would be as correct to speak of his known connection with the *Leader*.

Mr. Janson is sincerely thanked for his great kindness in advertizing our last number twice in the *Western Times*: in which he has also advertized a list of the benefactors to the London Mesmeric Infirmary, occupying nearly two columns and a half.

We have received the communications of Mr. James Mount and Mr. Chase, and they will appear in our next. We have received also Mr. A. K.'s verses, an article by S. K., Esq., A.M., M.R.I.A., and M.R.S., and one from Non-Wist.

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